# Sixty-Fifth Annual Report

of the

# Director of Public Health for the Government of Bombay

*For the Year 1928 - 29*

With Appendices

including the

Annual Reports of the Health Officers of the Ports of Bombay, Karachi and Aden

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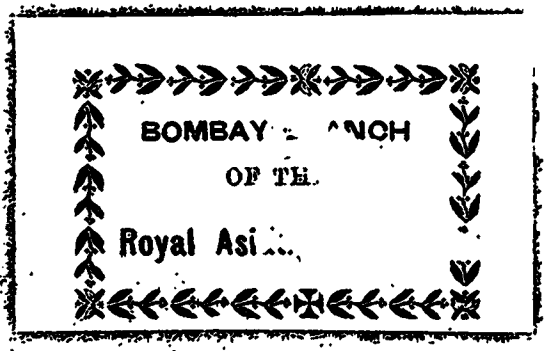


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# ANNUAL SANITARY REPORT, 1928

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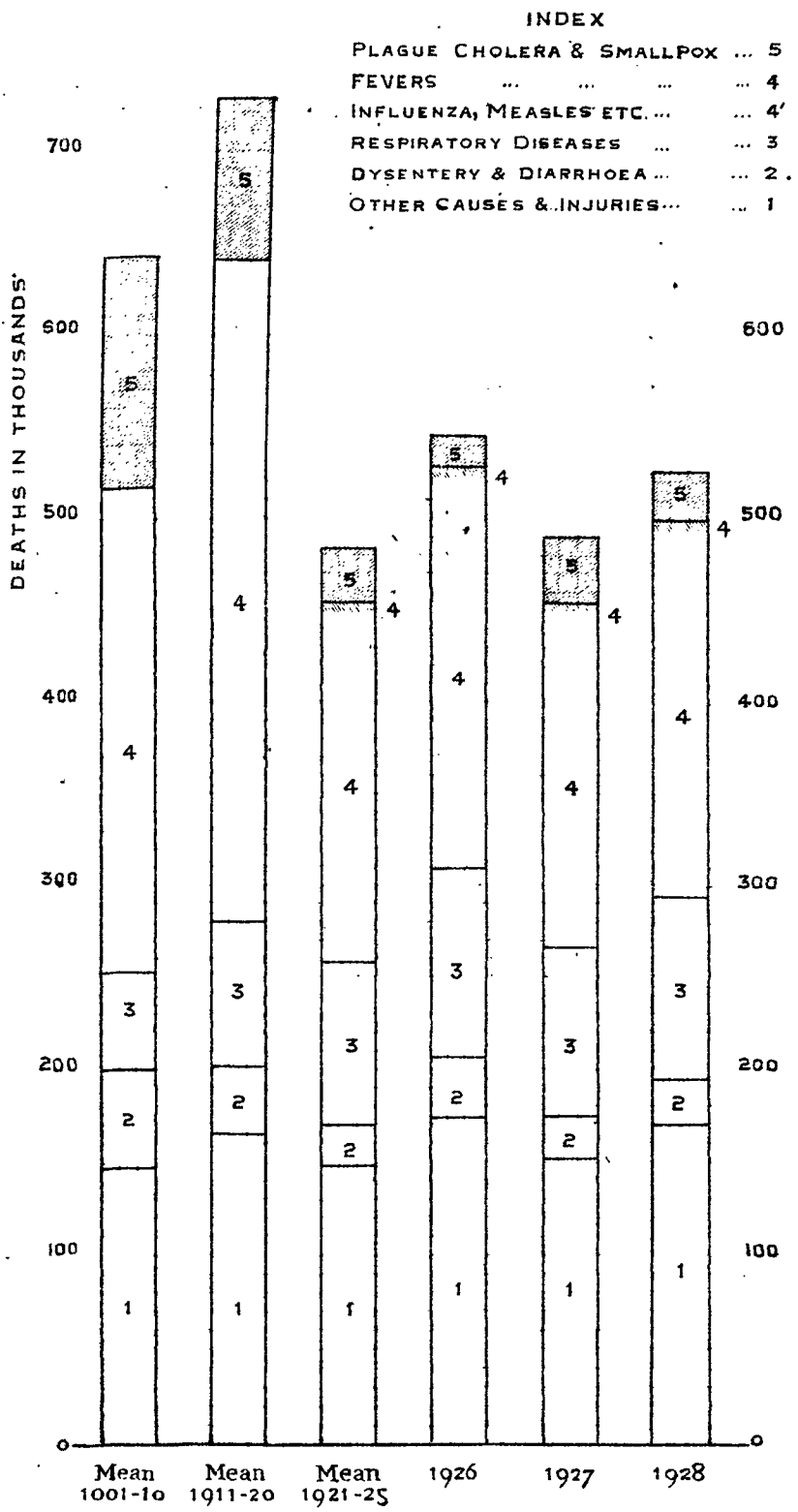
# CHART I

## DEATHS IN 1928 AND PREVIOUS YEARS.



# ANNUAL SANITARY REPORT FOR 1928.

**SECTIONS I to IV**—No remarks.

## SECTION V.

GENERAL POPULATION AND VITAL STATISTICS.

*Changes in the publication of Reports.*—In accordance with Government of India's letter, Department of Education, Health and Lands, No. 1009-H. dated the 25th May 1929, printed in the preamble of Government Resolution, General Department, No. P. 61 dated the 12th June 1929, the publication of the Annual Notes on Vaccination in the Bombay Presidency has been discontinued as a separate Report and will form part of the Annual Public Health Report. It will be published as Section VII of the Report and its appendices will appear as Appendices IV, V and VI of the Report. The Triennial Vaccination Report will be discontinued.

2. *Changes in Area.*—Under Government Notification, Revenue Department, No. 2884/24 dated 9th March 1928, published on page 443 of the *Bombay Government Gazette*, Part I, dated 15th March 1928, Khandala Peta of the Wai Taluka in the Satara District has been abolished with effect from 1st May 1928 and the villages thereof are included in Koregaon and Wai Talukas of the Satara District.

Under Government Notification, Revenue Department, No. 8774/24 dated 7th July 1928, published on page 1429 of the *Bombay Government Gazette*, Part I, dated 12th July 1928, one village from each of the Khanapurand Tasgaon talukas of the Satara District has been included in the Tasgaon and Sangola talukas of the Satara and Sholapur districts, respectively, with effect from 1st August 1928.

Under Government Notification, Revenue Department, No. 1442/24 dated 8th August 1927, published on page 1949 of the *Bombay Government Gazette*, Part I, dated 11th August 1927, certain villages heretofore included in the Dahanu Taluka and Mokhada Peta of the Thana District have been excluded therefrom and have been included in the Saiwan, Bapgaon, Sawa and Vavar mahals of the Thana District, with effect from 1st October 1927.

3. *Note.*—The birth and death ratios are calculated on the Census population of 1921 :—Europeans 19,247 ; Anglo-Indians 10,221 ; Indians 19,165,614 ; total population of the Bombay Presidency—19,195,082.

4. *Europeans.*—Two hundred and sixty-six births and 133 deaths were recorded against 248 and 172 equal to a birth-rate of 13·82 per mille against 12·88 in 1927 and a death-rate of 6·91 against 8·94. This fall is chiefly due to a drop from 119 to 87 in deaths in Bombay City where 59 per cent. of all the Europeans in the Presidency reside.

Of the births, 128 were males and 138 females, against 112 and 136 in 1927 while there were 88 male deaths and 45 female against 103

and 69. Of the deaths, two were due to cholera, 1 to small-pox, 9 to fevers, 8 to dysentery and diarrhœa, 25 to respiratory diseases, 7 to injuries and 81 to all other causes as compared with 2, 2, 15, 13, 33, 9 and 98 respectively, in the previous year.

As stated above, Bombay City shows a fall in mortality among Europeans—58 male and 27 female deaths against 68 and 51 respectively in 1927.

5. *Anglo-Indians.*—Three hundred and forty-five births and 192 deaths were registered against 329 and 186 in 1927. The birth and death ratios per mille for the year were, therefore, 33·75 and 18·78 respectively, compared with 32·19 and 18·20 in 1927. Of the births, 173 were males and 172 females against 164 and 165 in 1927, while of the deaths, 111 were males and 81 females against 103 and 83 in the previous year. Of the 192 deaths, 2 were due to cholera, 2 to small-pox, 17 to fevers, 11 to dysentery and diarrhœa, 59 to respiratory diseases, 10 to injuries and 91 to all other causes as compared with 1, *Nil*, 22, 23, 50, 4 and 86, respectively, in the previous year.

The Bombay City's contribution to the Anglo-Indian mortality was 67 male and 51 female deaths. Fever caused 7 deaths, dysentery and diarrhœa 10, respiratory diseases 38 and all other causes 56 against 15, 20, 38 and 56, respectively, in the previous year.

6. *Registration areas and Indian civil population.*—The Presidency is divided into five Registration districts comprising 28 Collectorates (including Bombay City), 253 Rural circles (Taluka and Mahal), 106 Town circles and 9 Cantonments. Aden and Baroda Cantonments also submit returns to this Department. These divisions are shown in Appendix III to this Report.

According to the 1921 Census the Indian population of the Presidency including Sind (19,165,614) was distributed as follows:—

Rural circles 15,421,829; Town circles 3,663,048; and Cantonment circles 80,737.

*Births.*

7. The year 1928 may be considered as satisfactory so far as the number of births is concerned. With the exception of 1914, the year under report shows the highest number of births on record. The total number of births registered was 731,647 showing an increase of 25,362 over the figures for 1927 and also of 86,717 on the decennial mean figure—644,930. The number of births recorded in previous years and the corresponding birth-rates are as follows:—

| Year. | Births. | Birth-rate. | Year. | Births. | Birth-rate. |
|---|---|---|---|---|---|
| 1901-1910 mean .. | 617,736 | 33·42 | 1920 .. | 593,175 | 30·28 |
| 1911 .. | 705,090 | 36·00 | 1921 .. | 624,640 | 32·59 |
| 1912 .. | 684,890 | 34·97 | 1922 .. | 620,770 | 32·39 |
| 1913 .. | 684,803 | 34·96 | 1923 .. | 681,910 | 35·58 |
| 1914 .. | 733,076 | 37·43 | 1924 .. | 682,321 | 35·60 |
| 1915 .. | 726,780 | 37·10 | 1925 .. | 664,384 | 34·66 |
| 1916 .. | 704,672 | 35·98 | 1926 .. | 710,135 | 37·05 |
| 1917 .. | 699,823 | 35·73 | 1927 .. | 706,285 | 36·85 |
| 1918 .. | 619,224 | 31·61 | 1928 .. | 731,647 | 38·17 |
| 1919 .. | 546,460 | 27·90 | | | |

The increase as compared with the previous year is shared by three Registration Districts—Central 15,428, Western 9,025 and Sind 5,129. The Gujarat Registration District shows a decrease of 3,841 and the Southern 2,730 over the previous year while an increase of 2,321 occurred in Bombay City, over the previous year's figure—21,302.

8. The birth-rate for the year for the Presidency as a whole was 38·17 against 36·85 during the previous year. For the Presidency proper excluding Bombay City and Sind the rate was 42·54 against 41·32 and for the Province of Sind 24·63 against 23·05 in 1927. The rates recorded in other parts of India for the last two years are given below :—

| | *1928* | *1927* | | *1928* | *1927* |
|---|---|---|---|---|---|
| Madras .. | 37·4 | 36·5 | Bihar and Orissa .. | 38·27 | 37·64 |
| Bengal .. | 29·57 | 27·07 | United Provinces .. | 38·24 | 36·73 |
| Assam .. | 31·24 | 30·25 | Punjab .. | 46·30 | 42·27 |
| Burma .. | 25·85 | 25·08 | Central Provinces .. | 46·51 | 45·58 |

It will be seen from the above table that an increase in the birth-rate was general throughout India.

In the Western Registration District, the birth-rate in 1928 when compared with the year previous shows a rise in all collectorates. The fall in 1919 was due to the severe pandemic of Influenza which prevailed in 1918. From that year the birth-rate began to rise steadily. In 1919 the birth-rate was 31·57, in 1920 it rose to 34·16 and in 1921 to 34·87. In 1922 it was 36·20 and in 1923 it rose to 42·64. In 1924 it fell to 41·44. In 1925 it rose slightly to 41·95. In 1926 it was 42·37 and in 1927, 43·99. In 1928, it was 46·27 which is the highest birth-rate recorded during the decennium.

In the Central Registration District, Ahmednagar Collectorate recorded the highest birth-rate (50·50) and Ratnagiri the lowest (37·66). The number of births recorded in the Central Registration District during the year under report is the highest as compared with the previous 20 years. The highest birth-rate is recorded every year in the Ahmednagar Collectorate. This is due to the return of the people, who were out of the district at the time of the last Census, on account of the famine and emigration.

In the Southern Registration District, the decrease in the birth figures as compared with the previous year is shared chiefly by the two Collectorates of Dharwar and Kanara, the number in the other two Collectorates of Belgaum and Bijapur being practically the same, the latter showing a slight increase of 205. There was a drop in the birth-rates of the Dharwar and Kanara districts as compared with those of last year but the rate in the former showed an increase of ·92 as compared with the quinquennial mean while that in the latter showed a slight decrease. It may be noted here that although the Dharwar District showed a considerable drop in the birth-rate, which is probably due to the prevalence of plague almost throughout the whole year, the figure recorded was not less than those recorded in any of the previous years since 1921 except the last year. The low birth-rate in the Kanara District is attributable to intense prevalence of malaria.

In the Gujarat Registration District, the birth-rate for 1928 when compared with the ratios recorded in 1927 shows an increase in Surat District by 1·28, while Broach, Kaira, Panch Mahals and Ahmedabad districts show a decrease of 1·52, 3·11, 3·53 and ·81 respectively. Surat District recorded the highest birth-rate in 1928 during the last ten years excepting 1924.

In the Sind Registration District, the largest increase in births is shown in Nawabshah District by 2,274 births and the lowest in Larkana by 164 births. The decrease is shown only in Upper Sind Frontier District by 104 births. The increase in births registered is partly due to the efforts made by the Public Health Department since during the year a list of omissions in births and deaths registers of 132 tappas for 1615 births not recorded by the Tapedars, was received from the vaccinators. The increase in births is also due to the favourable weather conditions prevailing in most of the districts in Sind.

9. In the Presidency as a whole the birth-rate for rural areas was 40·09 and for urban areas 30·29 against 38·73 and 29·12 respectively in 1927. For the Presidency proper excluding both Sind and Bombay City the rural birth-rate was 44·10 and the urban 33·11 against 42·78 and 32·54 respectively in 1927. Of the 27 districts in the Presidency the highest birth-rate was recorded in West Khandesh (53·57) and the lowest (18·58) in Hyderabad. Eleven returned a birth-rate of 40 or more per mille of population, *viz.*, East Khandesh (52·22), Ahmednagar (50·50), Nasik (50·08), Sholapur (47·38), Broach (46·09), Satara (45·03), Kolaba (42·54), Surat (42·31), Belgaum (41·54), Panch Mahals (41·14), and Bijapur (40·65). Seven returned rates between 30 and 40, *viz.*, Poona (38·51), Ratnagiri (37·66), Dharwar (37·64), Ahmedabad (36·78), Kaira (35,60), Thana (35·45), and Kanara (34·19) and the remaining six Sind districts returned low rates under 30, *viz.*, Karachi (29·61), Sukkur (27·63), Nawabshah (27·11), Upper Sind Frontier (26·17), Thar and Parkar (24·04), Larkana (21·44), and Bombay Suburban (21·44).

10. Of the 192 talukas, petas and mahals in the Presidency proper, 164 or as many as 85 per cent. returned rates over 35 per mille of population—47 of these areas yielding figures above 50, 71 areas, figures between 40 and 50, and 46 areas, figures between 35 and 40, per mille. Twenty returned rates between 30 and 35. The rates varied from 87·48 in Pathardi in Ahmednagar and 73·63 in Sakri of the West Khandesh District to as low a figure as 20·26 in South Salsette and 16·99 in Poona City Taluka. Amongst others, showing low rates, the following six talukas comprising 3 per cent. of the total returned birth-rates below 30 per mille of population, *viz.*, Nargund (29·91), Sirsi (28·11), Navalgund (26·69), Yellapur (26·26), Malcolmpeth (25·98), and Supa (25·76).

11. Out of 86 urban areas in the Presidency proper, 17 returned birth-rates exceeding 40. In General, the majority of Gujarat towns show the highest rates, *e.g.*, Borsad (49·03); Jambusar (46·88), Dhandhuka (45·43), Broach (45·42), Ahmedabad (43·70), Mehmedabad (42·49), Umreth (41·28), Surat (40·07). Besides these, there are nine towns outside

Gujarat which returned a birth-rate of over 40 per 1,000, *viz.*, Nasirabad (53·25), Nandurbar (45·65), Parola (45·04), Erandol (44·92), Guledgud (44·38), Ranebennur (43·43), Dhulia (41·72), Bagalkot (40·73) and Sholapur (40·01). Thirty-four towns recorded birth-rates between 30 and 40 per mille of population and 28 towns showed rates between 20 and 30. In the remaining 7 towns the recorded birth-rates were under 20, *viz.*, Amalner (19·28), Karad (19·10), Mahad (18·62), Thana (18·00), Satara (16·92), Uran (14·14) and Poona Suburban (4·44).

As remarked in previous reports, inefficient registration on the part of municipalities continues to be the chief factor in showing these inordinately low rates. In spite of the fact that Assistant Directors repeatedly bring the evils of defective registration of births to the notice of the Municipalities of the towns they inspect and suggest means for improving the system of registration, no attempt appears to have been made by any mofussil municipality in the Presidency for carrying out these recommendations.

The births recorded in Bombay City were 23,623 or 2,321 more than in the previous year equivalent to a birth-rate of 20·56—an increase of 2·02.

12. Sind recorded 80,322 births, an increase of 5,129 on the figures for 1927 and also of 11,594 over the decennial mean ending 1927 and 5,848 over that ending 1917. The birth-rate for the Province was 24·63 against 23·05 in 1927. The birth-rate for rural areas was 21·71 and for urban areas 40·87 as against 20·18 and 39·10, respectively in the previous year. As usual, the urban birth-rate this year also greatly exceeds the rural rate in contrast to the Presidency proper where the reverse is invariably the case.

Of the 61 talukas and mahals in Sind 6 or 10 per cent. returned birth-rates above 30 per 1,000 of population, *viz.*, Sukkur (37·18), Chachro (33·77), Diplo (32·59), Kashmore (31·45), Shahdadpur (30·30) and Nawabshah (30·09). Twenty-eight talukas or 46 per cent. returned birth-rates between 20 and 30 and the rates for the remaining 27 or 44 per cent. of the total were all below 20 per mille of population. Of these, excessively low rates of 10 and under were returned from three—Tatta, Ghorabari and Mirpur Bathero—in the Karachi District. The general cause of deficient birth-rates in rural areas has already been discussed in the Report for 1925.

The efficiency in registration in the urban circles of Sind varies. Of the 19 town circles, 11 show an increased birth-rate over the mean of the previous 5 years and only 8 show a decrease. These are Ratedero, Garhi-yasin, Sukkur, Nawabshah, Jacobabad, Sehwan, Tatta and Kotri. In these the birth-rate varied from 54·04 for Karachi City to 13·78 in Kotri town. Of the 19 towns, 4 recorded birth-rates over 40 per mille of population, *viz.*, Karachi (54·04), Hyderabad (41·62), Ratedero (40·96) and Larkana (40·95). Four returned birth-rates between 30 and 40, six between 20 and 30 and the remaining 5 returned rates that indicate extreme default, *viz.*, Nawabshah (19·11), Sehwan (14·92), Jacobabad (18·06), Tatta (14·40) and Kotri (13·78). These municipal towns have

been constantly figuring in previous annual reports as showing defective registration and the reasons for the default have also been pointed out.

13. *Births in Cantonments.*—Of the 9 Cantonments, Karachi (35·09), Nagar (23·28), Ahmedabad (14·32), Kirkee (14·01) and Belgaum (10·32) show the highest rates while for the remainder the figure was below 10, the lowest being recorded in Deolali.

14. *Births according to Sex.*—Out of 731, 647 births, 380,159 were males and 351,488 females equal to ratios of 19·83 and 18·34 per mille of population as compared with 366,694 and 339,591 and 19·13 and 17·72 in 1927. For every 100 female births there were 108·15 male births, the previous year's figure being 107·98. The percentage of male to female births registered varied from 103·66 in Broach District to 138·72 in Nawabshah. The proportion of male to female births is high throughout Sind.

15. *Still Births.*—10,685 still-births were registered or 1·46 for every 100 live births. The corresponding figures for 1927 were 11,117 and 1·57 respectively. The percentage of still births to live births recorded varied from ·09 for the Upper Sind Frontier district to 7·68 for the City of Bombay. For other areas, Kanara (4·44), Dharwar (3·83), Kolaba (2·90), Belgaum (2·65), Bijapur (2·46), Karachi (2·11) and Surat (2·05), show the highest percentages.

16. In the Southern Registration District, omissions of 710 births and 105 deaths were discovered by Inspectors and Vaccinators against 848 and 123 in the previous year. The omissions of 14 births and 1 death were discovered in Western Registration District, of 1,615 births in Sind against 1,035 in 1927 ; of 85 births and 18 deaths in the Central Registration District, against 23 and 13 in 1927 ; of 229 births and 16 deaths in the Gujarat Registration District, against 245 and 4 in 1927.

*Deaths.*

17. The year under report shows an increase in the mortality over the previous year and also over the quinquennial mean. This rise is due to some extent to fevers, respiratory diseases and all other causes. Besides, it is also to be noted that greater number of deaths amongst infants has largely contributed to swell the total mortality figure. The total number of deaths registered was 522,885 as compared with 492,891 in 1927 and 503,908 the quinquennial mean. Comparison is shown in graphic form at the beginning of this Section. The totals for previous years are given in the following table :—

| Year | Deaths | Year | Deaths |
|---|---|---|---|
| 1901-1910 mean .. | 639,483 | 1922 .. .. | 452,581 |
| 1911-1915 mean .. | 539,836 | 1923 .. .. | 496,244 |
| 1916 .. | 652,584 | 1924 .. .. | 529,576 |
| 1917 .. | 798,406 | 1925 .. .. | 453,563 |
| 1918 .. | 1,724,074 | 1926 .. .. | 547,064 |
| 1919 .. | 637,170 | 1927 .. .. | 492,891 |
| 1920 .. | 516,296 | 1928 .. .. | 522,885 |
| 1921 .. .. | 498,350 | | |

18. The recorded death-rate for the whole Presidency works out to 27·28. The death-rate in 1927 was 25·72, the quinquennial mean being 26·29.

For the other parts of India the death-rates recorded are as under :—

| | *1928* | *1927* | | *1928* | *1927* |
|---|---|---|---|---|---|
| Madras .. | .. 26·4 | 24·3 | Bihar & Orissa | .. 25·29 | 25·08 |
| Bengal .. | .. 25·55 | 26·6 | Punjab .. | .. 24·72 | 27·46 |
| Assam .. | .. 22·16 | 23·47 | United Provinces | .. 24·15 | 22·59 |
| Burma .. | .. 21·28 | 19·55 | Central Provinces | .. 33·66 | 31·31 |

Excluding Bombay City and Sind, the death-rate for the Presidency was 29·92 against 28·03 in 1927. The death-rates for rural and urban areas for the Presidency as a whole was 27·18 and 27·68 respectively, against 25·49 and 26·56 in 1927.

Of the districts, the highest death-rates were returned by Satara (36·47), Nasik (35·59), Ahmednagar (35·73), Sholapur (34·71), Broach (34·16), East Khandesh (31·90), West Khandesh (31·28), Kanara (31·06) and Ahmedabad (31·05), and the lowest by Ratnagiri (24·48), Thana (24.07), Panch Mahals (23·54) and Bombay Suburban (18·12). The high death-rate in Satara was mainly due to the prevalence of plague and cholera, while in the districts of Ahmednagar, Sholapur, East Khandesh and West Khandesh, cholera was prevalent to some extent and in Nasik cholera and plague. In Kanara, the chief causes for the high mortality may be again attributed to malaria and dysentery and diarrhœa.

By Registration Districts, the increase or decrease in the number of deaths was as follows :—

The increase in the number of deaths as compared with the previous year is shared by the 4 Registration Districts—Western 18,051, Central 11,210, Gujarat 6,260 and Sind 2,381, while the Southern Registration District and Bombay City show a decrease over the previous year of 7,631 and 277 respectively.

19. Of the 192 talukas, petas and mahals in the Presidency proper, 16 as compared with 11 in the previous year show death-rates exceeding 40 per mille of population. These are Shevgaon (55·97), Satara (54·55), Khatav (53·90), Man (50·73), Pathardi (49·86), Wai (46·65), Mundgod (45·91), Ambernath (44·66), Karjat (44·34), Sakri (43·94), Malegaon (43·72), Niphad (42·97), Newasa (42·55), Nandgaon (42·11), Koregaon (41·70) and Karad (40·80). Twenty-seven returned rates between 35 and 40, *viz.*, Karmala (39·63), Sangamner (39·45), Yeola (39·37), Barsi (38·75), Sinnar (38·68), Chalisgaon (38·64), Parner (38·61), Chandor (37·76), Jamkhed (37·69), Baglan (37·58), Wagra (37·11), Amod (36·78), Jambusar (36·64), Haliyal (36·22), Edlabad (36·10), Kumta (35·86), Belgaum (35·86), Dindori (35·81), Nasik (35·59), Ahmednagar (35·29), Yawal (35·27), Shrigonda (35·26), Rahuri (35·22), Siddapur (35·21), Bhusawal (35·11), Dhond (35·05) and Kalghatgi (35·02). Forty-three returned rates between 30 and 35, 99 recorded rates between 20 and 30 and the remaining 7 returned rates below 20.

20. For urban areas, death-rates varied between 64·33 for Karad town and 8·36 for Trimbak. Out of 86 urban registration circles in the Presidency proper, 6 returnedde ath-rates over 40 per mille of population, *viz.*, Karad (64·33), Pandharpur (61·88), Gadag-Bettigeri (42·08), Ahmedabad (42·08) and Barsi (40.86). Twenty-two returned rates between 30 and 40, *viz.*, Dakore (39·17), Ilkal (38·88), Parola (38·45), Yeola (38·24), Poona City (38·10), Guledgud (37·87), Satara (37·54), Surat (36·88), Nasirabad (36·59), Nadiad (36·03), Sholapur (35·90), Malegaon (35·63), Wai (34·48), Bhiwandi (33·61), Dhandhuka (33·51), Mehmedabad (33·35), Nasik (32·75), Hubli (32·48), Borsad (32·19), Umreth (31·73), Ranebennur (31·37) and Erandol (30·50). Thirty-eight returned rates between 20 and 30 and the remaining 21 returned rates below 20.

21. *Corrected death-rates.*—The following table gives the death-rates in accordance with age and sex distribution for the Presidency proper and for the six towns for which such correction is possible :—

| —— | Standard death-rate | Factor for correction | Recorded death-rate | Corrected death-rate |
|---|---|---|---|---|
| Presidency excluding Sind .. | 39·8 | 1·0 | 29·92 | 29·92 |
| Ahmedabad .. .. .. | 37·6 | 1·06 | 42·08 | 44·60 |
| Bombay City .. .. .. | 28·6 | 1·39 | 23·59 | 32·79 |
| Poona .. .. .. | 37·0 | 1·08 | 38·10 | 41·14 |
| Sholapur .. .. .. | 39·4 | 1·01 | 35·90 | 36·25 |
| Surat .. .. .. | 39·0 | 1·02 | 36·88 | 37·61 |
| Karachi .. .. .. | 38·5 | 1·03 | 28·13 | 28·97 |

22. The birth and death returns of the chief cities may be briefly noted on as follows :—

*Bombay.*—Population 1,148,815. 23,623 births were registered equal to birth-rate of 20·56 as compared with 21,302 and 18·54 in the previous year The registered deaths amounted to 27,107 as against 27,384 in 1927. The death-rate per mille of population was 23·59 against 23·84 in 1927. The number of infantile deaths was 7,427 or a ratio of 314·40 per 1,000 registered births, as against a rate of 319·12 in the previous year. The chief causes of death shown in the returns were small-pox, fevers, respiratory diseases (pneumonia and phthisis contributing a large number of deaths) and all other causes.

*Ahmedabad.*—Population 270,899. The number of births registered was 11,827 equal to a birth-rate of 43·70 as against 11,577 and 42·78 respectively in 1927. The registered deaths were 11,389 corresponding to a death-rate of 42·08, as compared with 10,871 and 40·17 respectively in 1927. The number of infantile deaths was 3,914 equal to a ratio of 330·94 per 1,000 registered births as against a rate of 287·27 in 1927. The chief causes of death shown in the returns were fevers, respiratory diseases and all other causes. The city shows a steady increase in births since 1922 and the birth-rate recorded in 1928 was higher than the previous year and the highest during the last 11 years.

*Poona.*—Population 133,122. Births registered were 2,985 equal to a birth-rate of 22·42 as against 2,580 and 19·38 respectively in 1927. The total deaths registered amounted to 5,072 equal to a death-rate of 38·10 as compared with 5,491 and 41·25 respectively, in 1927. The chief causes of death shown in the returns were fevers, respiratory diseases (pneumonia and phthisis again appear largely under the latter headings) and all other causes. The number of infantile deaths was 1,651 or a ratio of 553·10 per 1,000 registered births as against a rate of 594·18 in the previous year. The infant mortality rate of this city is always abnormally high owing mainly to defective registration of births. But after making due allowance for this the rate still remains the highest in the Presidency. After numerous representations on the subject, the municipality are now taking steps to secure more accurate registration in future. From the following figures it will be seen that there is some improvement in the birth-rate during the year under report and it is the highest during the last 12 years. It is hoped that the Municipality will continue its effort and show progressive improvement :—

| Year | Birth-rate | Year | Birth-rate |
|---|---|---|---|
| 1916 .. .. | 6·94 | 1923 .. .. | 16·37 |
| 1917 .. .. | 11·46 | 1924 .. .. | 13·86 |
| 1918 .. .. | 13·92 | 1925 .. .. | 18·11 |
| 1919 .. .. | 20·94 | 1926 .. .. | 19·26 |
| 1920 .. .. | 20·18 | 1927 .. .. | 19·38 |
| 1921 .. .. | 15·96 | 1928 .. .. | 22·42 |
| 1922 .. .. | 10·67 | | |

*Karachi.*—Population 199,014. The total births registered were 10,755 equal to a birth-rate of 54·04 against 10,217 and 51·33, respectively, in the previous year. 5,598 deaths were registered showing a decrease of 274 over the previous year's figure—5,872. The death-rate was 28·13 against 29·50 in 1927. Fevers, respiratory diseases and all other causes were among the chief causes of death. Pneumonia and measles were more prevalent in the city during the year under report. The infant mortality rate per 1,000 registered births shows a decrease from 211·02 to 190·42.

*Surat.*—Population 117,428. There were 4,706 births recorded as against 4,615 in 1927. The birth-rate shows an increase from 39·30 to 40·07 per mille of population. The city has shown a steady increase in births since 1922 and the birth-rate recorded in 1928 is the highest during the last 10 years. The total deaths recorded were 4,331 equal to a death-rate of 36·88 compared with 4,145 and 35·30, respectively, in the previous year. Respiratory diseases and deaths under all other causes were principally responsible for swelling the figures. The number of infantile deaths was 1,641 or a ratio of 348·70 per 1,000 registered births as against a rate of 325·24 in 1927.

*Sholapur.*—Population 119,347—4,775 births were registered equal to a birth-rate of 40·01 as compared with 5,054 and 42·35 respectively in 1927. Total deaths recorded were 4,284 equal to a death-rate of 35·90 as compared with 4,092 and 34·29, respectively, in 1927. Small-pox, fevers, respiratory diseases and all other causes were among the chief

causes of death. The general health of the city as measured by the death-rate for the year under review was not so satisfactory as during the previous year. The set-back is mainly due to the severe epidemic of small-pox in the first half of the year and to the increase in the number of deaths from fever. 319 deaths from small-pox were registered equal to a death-rate of 2·67. There were only 10 deaths from cholera. The infant mortality rate per 1,000 registered births was 246·93 as against 199·05 in the previous year.

23. *Death-rate in Sind.*—The death-rate for Sind was 16·66, as compared with 15·92 in 1927. The urban (25·34) greatly exceeds the rural death-rate (15·10) as in previous years and is attributable to faulty registration in rural areas. The urban death-rate ranged between 6·78 for Halla and 29·09 for Larkana, and the rural death-rate between 8·92 for Kashmore and 34·23 for Diplo talukas. Out of 19 urban circles in Sind, 7—Tatta, Matiari, Tando Adam, Kambar, Sukkur, Rohri and Garhiyasin—show a higher death-rate than that of the five years' mean.

24. *Death-rate in Cantonments.*—The lowest death-rate 1·49, was recorded in Santa Cruz while Kirkee headed the list of 30·78 (as compared with 30·66 in the previous year). Respiratory diseases in the latter Cantonment were responsible for 94 deaths equal to a rate of 11·77 per mille of population. Of these, 58 were due to pneumonia, 19 to phthisis, and 17 to other respiratory diseases. The death-rates recorded in other Cantonments were Nagar (19·91), Ahmedabad (14·32), Poona (13·81), Belgaum (11·63), Karachi (10·27), Hyderabad (7·78) and Deolali (7·67).

25. *Births* versus *Deaths.*—Over the Presidency as a whole births exceeded deaths by 208,762 or a "natural increase" of 1·09 per cent. on the population compared with 1·11 per cent. for the year previous. In the Presidency excluding Sind and Bombay City, the percentage of increase amounts to 1·26 as against 1·33. For Sind, the figure is ·80. In Bombay City, on the other hand, deaths exceeded births by 3,484 or 0·30 per cent. of the City's population. Further details are given in columns 6 and 9 of Annual Form No. II.

26. *Mortality according to Sex.*—269,812 male and 253,073 female deaths were recorded giving death ratios per 1,000 of each sex of 26·85 and 27·76, respectively, against 25·45 and 26·01 for 1927. For every 100 females 106·61 males died as compared with 107·88. In Sind, the ratio of male to female deaths during the year was 127·74 to 100.

### *Infant Mortality.*

27. There were 131,913 deaths under twelve months corresponding to a ratio of 180·30 per 1,000 registered births as against 114,009 or a ratio of 161·42 in 1927. The male and female rates were 188·37 and 171·56, respectively, as compared with 167·89 and 154·43 in the previous year.

The improvement in these figures seen last year has received a set back during the year under report.

# DEATH RATE AT EACH AGE PERIOD

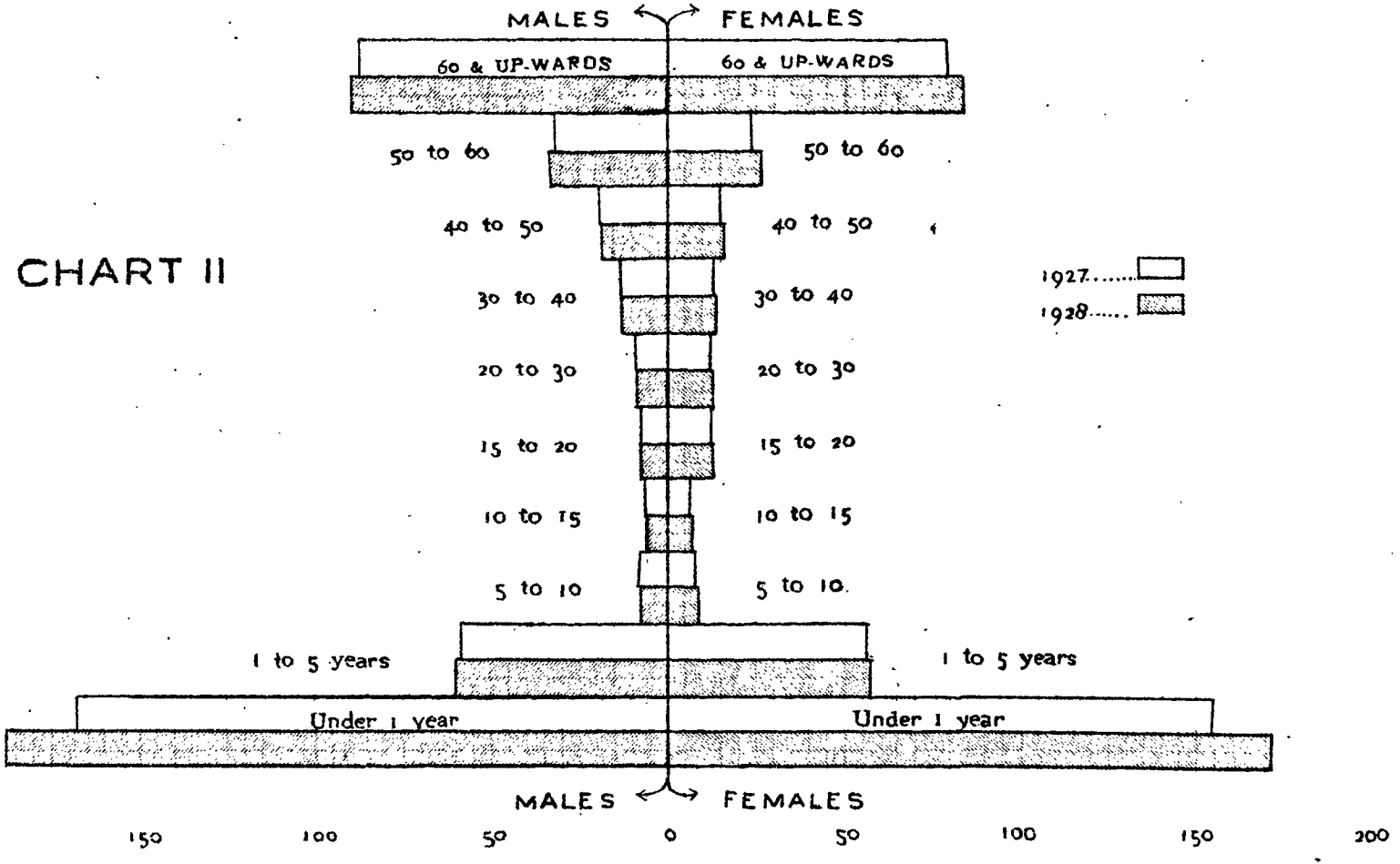
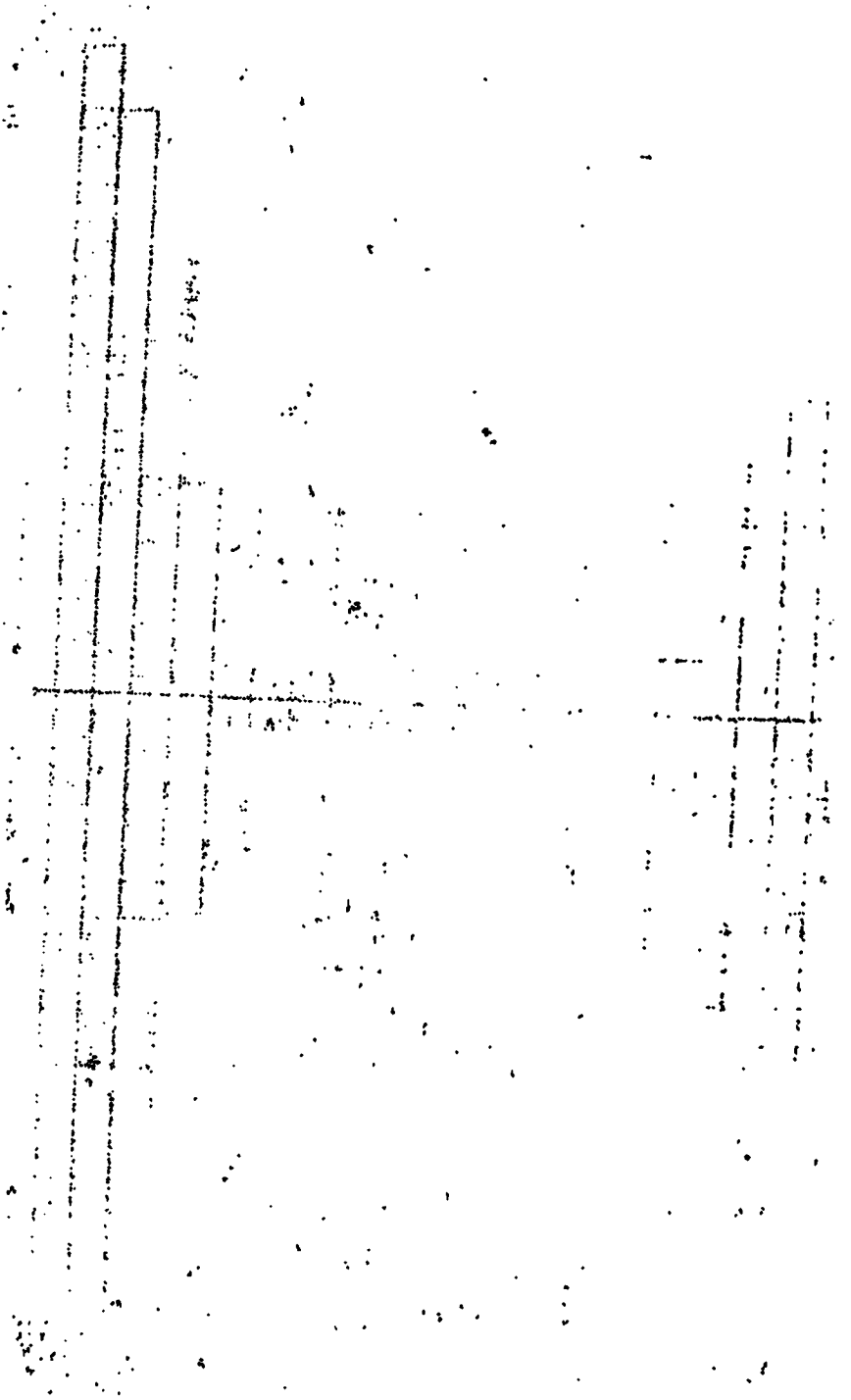



CHART II

1927.....
1928.....



Infant mortality, 1928, compared with previous years :—

| Year | Deaths under 12 months | | | Births registered | | | Infant death rate per 1,000 births | | | Infant deaths per 100 of total deaths |
|---|---|---|---|---|---|---|---|---|---|---|
| | Male | Female | Total | Male | Female | Total | Male | Female | Total | |
| 1928 .. | 71,611 | 60,302 | 131,913 | 380,159 | 351,488 | 731,647 | 188·37 | 171·56 | 180·30 | 25·23 |
| 1927 .. | 61,564 | 52,445 | 114,009 | 366,694 | 339,591 | 706,285 | 167·89 | 154·43 | 161·42 | 23·13 |
| 1926 .. | 75,030 | 63,183 | 138,213 | 368,823 | 341,312 | 710,135 | 203·43 | 185·12 | 194·63 | 25·25 |
| 1925 .. | 58,033 | 49,551 | 107,634 | 346,373 | 318,011 | 664,384 | 167·69 | 155·81 | 162·01 | 23·73 |
| 1924 .. | 70,489 | 59,950 | 130,439 | 353,631 | 327,690 | 682,321 | 198·77 | 182·95 | 191·17 | 24·63 |
| 1923 .. | 59,228 | 49,684 | 108,912 | 354,890 | 327,020 | 681,910 | 166·89 | 151·93 | 159·76 | 21·95 |
| 1922 .. | 57,130 | 47,841 | 104,971 | 323,631 | 297,139 | 620,770 | 176·53 | 161·01 | 169·10 | 23·19 |
| 1921 .. | 60,231 | 51,023 | 111,254 | 325,751 | 298,889 | 624,640 | 184·90 | 170·71 | 178·11 | 22·32 |
| 1920 .. | 59,236 | 49,440 | 108,676 | 309,463 | 283,712 | 593,175 | 191·42 | 174·26 | 183·21 | 19·36 |
| 1919 .. | 58,950 | 51,398 | 110,348 | 285,195 | 261,265 | 546,460 | 206·70 | 196·73 | 201·93 | 17·32 |
| 1918 .. | 94,553 | 83,124 | 177,677 | 322,546 | 296,678 | 619,224 | 293·14 | 280·17 | 286·93 | 10·82 |
| 1917 .. | 79,984 | 71,649 | 151,633 | 363,460 | 336,362 | 699,822 | 220·06 | 213·01 | 216·67 | 18·99 |
| 1916 .. | 75,328 | 65,304 | 140,632 | 365,057 | 339,615 | 704,672 | 206·34 | 192·29 | 199·57 | 21·58 |
| 1915 .. | 67,440 | 57,569 | 125,009 | 376,930 | 349,850 | 726.780 | 178·92 | 164·55 | 172·00 | 24·43 |

Of the infants who died, 50,862 were in their first month of life (28,017 under and 22,845 over one week), 47,028 over one month but not exceeding six months and the remainder 34,023 between six and twelve months. The percentage of total infant mortality under each of these three subgroups works out to 38·56, 35·65 and 25·79, respectively.

The details of the average hundred infant deaths in each Registration District are given in the following table :—

*Infantile Deaths.*

| District | In every 100 total deaths | Per 1,000 registered births | Not exceeding one month | 1—6 months | 6—12 months |
|---|---|---|---|---|---|
| Western .. .. | 28·71 | 184·67 | 39·06 | 36·76 | 24·18 |
| Central .. .. | 24·75 | 178·15 | 36·33 | 38·72 | 24·95 |
| Southern .. .. | 21·98 | 158·27 | 44·89 | 34·93 | 20·18 |
| Gujarat .. .. | 26·41 | 198·65 | 34·63 | 35·08 | 30·29 |
| Sind .. .. | 21·28 | 143·85 | 43·02 | 29·68 | 27·30 |
| Bombay City .. .. | 27·40 | 314·40 | 35·53 | 28·60 | 35·87 |
| Presidency .. .. | 25·23 | 180·30 | 38·56 | 35·65 | 25·79 |

From the above table it will be seen that throughout the Presidency except Central and Gujarat Registration Districts mortality amongst infants was highest in the first month of life.

The urban and rural infantile death-rates per 1,000 registered births for the Presidency as a whole were 250·71 and 167·38, respectively, as compared with 234·15 and 148·15 in the previous year. The highest

rural infantile death-rate was recorded in Broach (238·88) and the lowest in Ratnagiri (92·79). Among the larger towns the following recorded the highest rates :—

Poona City (553), Pandharpur (544), Barsi (390), Surat (349), Dakor (341), Ahmedabad (331), Satara (324), Bombay City (314), Nadiad (298), Nasik (285), Shikarpur (283), Sholapur (247), Thana (231), Jalgaon (225), Larkana (218), Dhulia (215), Kurla (194), Hyderabad (191) and Karachi (190).

Detailed figures are given in Annual Form No. VI (*a*).

The Assistant Director of Public Health, Central Registration District, reports that the erection of the new municipal model Maternity Home building at Sholapur is almost completed and it will soon be ready for occupation.

The Sholapur Maternity and Infant Welfare Association is doing good work. 380 cases were treated at the Maternity Home for confinement. 42 cases were treated by the staff outside and 34 were treated at the Home for other diseases.

The work of training Dais under the Lady Wilson Village Maternity Scheme is progressing. During the year a new centre was opened in Sholapur town.

Government as in the previous year, sanctioned a sum of Rs. 10,000 to be given towards grants-in-aid for these centres, but the condition that the grant in each case should be limited to one-third of the total expenditure has been waived for two years.

The Assistant Director of Public Health, Southern Registration District, reports :—

"More attention is being paid by the municipalities to the entertainment of trained midwives for advising pregnant women and attending confinements. During the year, 681 confinements were attended to as against 462 in the last year by municipal midwives, the total number entertained being 14 in all.

The Belgaum Branch of the Red Cross Society have started an Infant Welfare Centre in an area of 10,000 population selected in Belgaum town and Cantonment limits. The Centre is in charge of a qualified Lady Health Visitor appointed for the purpose and it is reported that the work is making satisfactory progress.

A large number of Baby and Health Shows were held in the rural areas of the Dharwar and Bijapur Districts. These were organised by the Public Health Department in co-operation with the Red Cross Society."

In Gujarat Registration District, a District branch of the Lady Wilson Maternity Association was formed in the Broach District to train village Dais.

The following is a brief extract from the Section that deals with infant mortality in the Annual Report of the Executive Health Officer, Bombay Municipality :—

"*Bombay City.*—The number of deaths among infants under one year of age was 7,468 being 611 more than in 1927, but 2,362 less than the annual average in the ten years 1918-1927.

The infant mortality rate expressed as the number of deaths in infants per 1,000 registered births was 311 as compared with a rate of 316 in 1927 and of 474 the annual average in the decennium (1918-1927).

It will be seen that 5,735 or nearly 77 per cent. of the total deaths in infants were due to diseases of the Respiratory system, Infantile Debility and Premature Birth against 76 per cent. (5,224 deaths) in 1927. Diarrhoea and Enteritis caused 268 deaths, Malaria, Ague and Remittent Fevers 104 deaths and Convulsions 654 deaths. The deaths from Small-pox and Measles numbered 127 and 23 respectively.

*Quinquennial Averages.*—Compared with the averages of the preceding five years, the total number of deaths was less by 543, the principal decreases in the mortality being 2 under small-pox, 17 under Measles, 9 under Malaria, 260 under Diarrhoea and Enteritis, 14 under Dysentery, 427 under Infantile Debility and Premature Birth and 187 under Convulsions. On the other hand increases were registered under Remittent Fever and Fever not defined (17) and Diseases of Respiratory System (227).

Of the total deaths among infants, 1,636 or 22 per cent. took place in the first week of life and 1,019 or 14 per cent. in the age-period 1 to 4 weeks.

The mortality among infants who had not completed the first month of life was thus 2,655 or 36 per cent. of the total infant deaths. The number of deaths in the age-groups four weeks, 1 to 6 months and 6 to 12 months was 2,134 and 2,679 being respectively 29 and 36 per cent. of the total infant mortality.

The salient features are the magnitude of the role played by debility and prematurity in the causation of death in the first 4 weeks of life and the large proportion of deaths from Respiratory diseases during the remaining 11 months of infancy.

*Infant Mortality by Races.*—Infant mortality among the principal castes are Hindus all other castes 327, Hindus low caste 332, Mussalmans 328, Parsis 112, Jews 110, Indian Christians 309, Anglo-Indians 132, and Europeans 62.

The high rates recorded suggest the presence in Bombay of some adverse factor in addition to the poverty and ignorance which are chiefly responsible for high rates in western countries. The added factor affecting all classes is probably Malaria ; another factor which can hardly fail to enhance the infant mortality among the more ignorant portions of the population, is the practice of soothing babies by the administration of opium.

Syphilis contributes to the death roll but whether to a greater extent than in other cities it is not possible to say when an overwhelming majority of the total deaths under one year are not certified by medical practitioners.

The percentage of population occupying tenements of one room and under to the total number of occupants in all classes of tenements in the City by the Census of 1921 was 66. Of the 24,017 births registered in the year, 13,959 or 58 per cent. occurred in families living alone

in a single room or sharing it with others, and the number of deaths in infants in this class of population was 6,189 or 83 per cent. of the total infant mortality.

It will be observed that the rate of deaths among infants in single room tenements per 1,000 births in such tenements during the year was 443 against 490 in 1927, and that the proportion of deaths to births varies inversely as the number of rooms occupied by the parents. For 2 room residences the figure is 355 ; 3 rooms 223 and four or more rooms 175 ; and for Hospitals 72.

*Prevention of Infantile Mortality.*—The work which is being done in Bombay for the reduction of infant mortality may be described under the following heads :—

(1) Visits by the Municipal District Nurses for the purpose of getting into touch with prospective mothers and for discovering cases of sickness especially among women and children and unvaccinated children ; for inquiry into the condition of new-born infants ; and for giving instruction by homely talks as to the care and rearing of children.

(2) Attendance on confinements.

(3) Provision of necessaries and comforts during the lying-in period.

(4) Maternity Homes.

(5) Infant Milk Depôts.

(6) Infant Welfare Centres.

*Summary of Work.*—During the year the Municipal Nurses paid 41,461 visits to houses, chawls and huts (against 37,397 in 1927), inquired into 2,801 cases of ordinary sickness, and reported 172 cases of infectious diseases and 441 deaths in the female population of the City. They also attended on 1,370 confinements (against 1,330 in 1927) and verified the reports of the Birth Karkuns on 5,115 births.

It will be seen that of the total number of 25,843 births (including 1,826 still-births) registered in the City during the year, 10,813 or 42 per cent. were verified by the Municipal Nurses as in 1927 as against 43 per cent. in 1926.

Among the cases wherein enquiries were made, the proportion of births wholly unattended was 5 per cent. and that of confinements attended by unskilled women 34 as against 6 and 38 respectively in 1927.

The percentage of confinements attended by qualified midwives (other than Municipal) was 9 as in 1927 and that of confinements attended by municipal midwives was 13 as in the preceding year ; the percentage of children born in Hospitals showed an increase from 33 to 39 per cent.

The percentage of children born in healthy condition was 69 as against 68 in the previous year and that of children fed on breast was 72 as against 73 in 1927.

The proportion of children dying within 30 days of birth was 10 per cent. as against 12 in 1927.

The percentage of mothers who left home for work leaving their children to the care of others was 31 as against 33 in the previous year.

Relief to poor women during confinement in the shape of necessaries and comforts such as milk, bread, bed, blankets, charpoys and linen was continued during the year and dispensed in 362 cases against 333 in 1927 and 297 in 1926.

The total number of women admitted to the Municipal Maternity Homes during the year was 2,850 as against 2,189 in 1927. The number of cases confined in the Homes was 2,597 against 2,005 in 1927. Of the women confined, 664 were primiparæ.

*Infant Milk Depôts.*—Two Infant Milk Depôts were established, one at the Bellasis Road and the other at the Victoria Road Maternity Home for distributing daily pure milk free or at a nominal price, for the benefit of children born in the Homes or under the supervision of the Municipal Nurses. 12,880 seers were distributed at these depôts up to 6th August 1928, after which date they were closed in accordance with Corporation Resolution No. 3447 of 18th August 1928. The supply of milk for infants and mothers was discontinued on the grounds that their needs are met by Centres of the Infant Welfare Society where 142,500 seers were distributed in 1928.

*Voluntary Welfare Centres.*—The Maternity and Child Welfare Scheme of the Infant Welfare Society has made much progress. At the end of the year the centres established numbered nine. The Society provides through them (1) advice and instruction to mothers as to infant management, (2) medical aid to infants, and (3) a staff of trained nurses for visiting the homes of infants. Each centre is in charge of a Supervisor who is a trained nurse and a midwife. She supervises the milk distribution and assists the Lady Doctor in charge in attending on babies and advising mothers on infant management. There is also a Health Visitor, who is a trained nurse midwife attached to each Centre. She visits the babies in the district and persuades their mothers to take advantage of the Infant Welfare Scheme.

During the year, 3,738 seers of milk were given free, 25,774 seers were sold at 1 anna a seer and 79,748 seers at 2 annas a seer. The number of new admissions at the nine centres was 5,002 and that of attendances for milk, medicine, treatment and advice 356,517.

The number of confinements attended by the Midwives of the Society was 1,040."

A creche is attached to the DeLisle Road Centre and now contains 40 children.

28. Deaths by castes or classes and by sex are recorded in Annual Form No. V, Appendix III.

29. *Deaths according to Causes.*—The following table shows the number of deaths in 1928 and the ratio per 1,000 of population arranged

according to causes and contrasted with the figures for 1927 and with the mean for the preceding five years :—

| Causes. | 1928. | | 1927. | | Mean for five years. | |
|---|---|---|---|---|---|---|
| | No. | Ratio. | No. | Ratio. | No. | Ratio. |
| Cholera .. | 6,881 | ·36 | 26,153 | 1·36 | 8,748 | ·45 |
| Small-pox .. | 5,265 | ·27 | 5,091 | ·27 | 5,724 | ·30 |
| Plague .. | 13,563 | ·71 | 4,076 | ·21 | 13,900 | ·72 |
| Fevers .. | 206,356 | 10·77 | 186,543 | 9·73 | 200,713 | 10·47 |
| Dysentery and Diarrhœa .. | 23,371 | 1·22 | 25,447 | 1·33 | 26,282 | 1·37 |
| Respiratory Diseases .. | 97,428 | 5·08 | 87,963 | 4·59 | 89,897 | 4·69 |
| Injuries .. | 7,959 | ·41 | 7,873 | ·41 | 7,637 | ·40 |
| Other Causes .. | 162,062 | 8·46 | 149,745 | 7·81 | 151,006 | 7·88 |
| All Causes .. | 522,885 | 27·28 | 492,891 | 25·71 | 503,908 | 26·29 |

There is a marked increase in mortality under all disease headings except cholera and dysentery and diarrhoea.

Contrast graphs of the monthly incidence of deaths under the chief causes for the year under report compared with previous years are shown in Chart III. Also graphs of annual incidence of deaths under the chief epidemic diseases—cholera, small-pox, and plague are shown in Chart IV.

Comments on the causes of death are made in section VI.

30. *Cantonment in Native States.*—The vital statistics of the Cantonments of Nasirabad, Neemuch, Mhow, Deesa, and Rajkot have been omitted from this Report *vide* Government Memorandum General Department, No. 7402-D, dated 20th February 1929. The vital statistics of Baroda and Aden only are shown below.

*Baroda.*—Population 2,934. The total number of births registered were 25 giving a ratio of 8·52 per 1,000 of population against 19 and 6·48 respectively, in 1927. The total deaths registered amounted to 22 equal to a death-rate of 7·50 against 28 and 9·54 respectively in the previous year. Fever caused 13 deaths, dysentery and diarrhoea 1 and all other causes 8.

*Aden Settlement.*—Population 44,000. The total number of births registered were 639 equal to a birth-rate of 14·52 per mille of populations as compared with 667 and 15·16 respectively in the previous year. The registered deaths were 2,887 corresponding to a death-rate of 65·61 per 1000 of population as against 1,097 and 24·93, respectively in 1927. There were 1,127 deaths from plague. Fever caused 227 deaths, small pox 3, dysentery and diarrhoea 383, respiratory diseases 239, injuries 10, and all other causes 898.

*Aden Cantonment.*— Population 650. The total number of births registered were 14 equal to a birth-rate of 21·54 per mille of population as against 9 and 12·85 respectively in 1927. There were 39 deaths recorded as against 15 in the previous year. The death-rate was 60·00 per mille of population as against 23·08 in 1927. Ten deaths were due to plague, 10 to fever, 2 to dysentery and diarrhoea, 1 to injuries and 16 to all other causes.

31. *Rainfall.*—The outlook in a large part of the Presidency at the end of June was far from satisfactory and so far as the beginning of monsoon was concerned it was not at all auspicious. In July rainfall was sufficient and seasonable but in August it was not as substantial or general. In September the rains were good all over the Presidency while in October they fell in light scattered showers.

*Sind.*—The rainfall was more or less below the normal in Sind. In Hyderabad the scanty rains were insufficient to make up for the shortage of water. The same conditions prevailed in Larkana District and thereby very little cultivation could be undertaken in the Kachho tract. Heavy rains with the resultant floods did considerable damage to the crops and property in the Mirpurkhas, Jamesabad, Digri, Samaro and Umarkot talukas of Thar and Parkar District.

*Gujarat.*—There was no rain at all in Ahmedabad District during June. In the other districts of Gujarat also, the rainfall during this month was very scanty. There was a sufficient rainfall almost throughout the Division in July. The rainfall at the end of August was most timely except in the river tract of Ahmedabad and Surat where more rain was still required. In Kaira and Panch Mahals Districts there was continuous and heavy rain at the end of August. The rainfall was sufficient and generally beneficial in September, while it was much below the average in October.

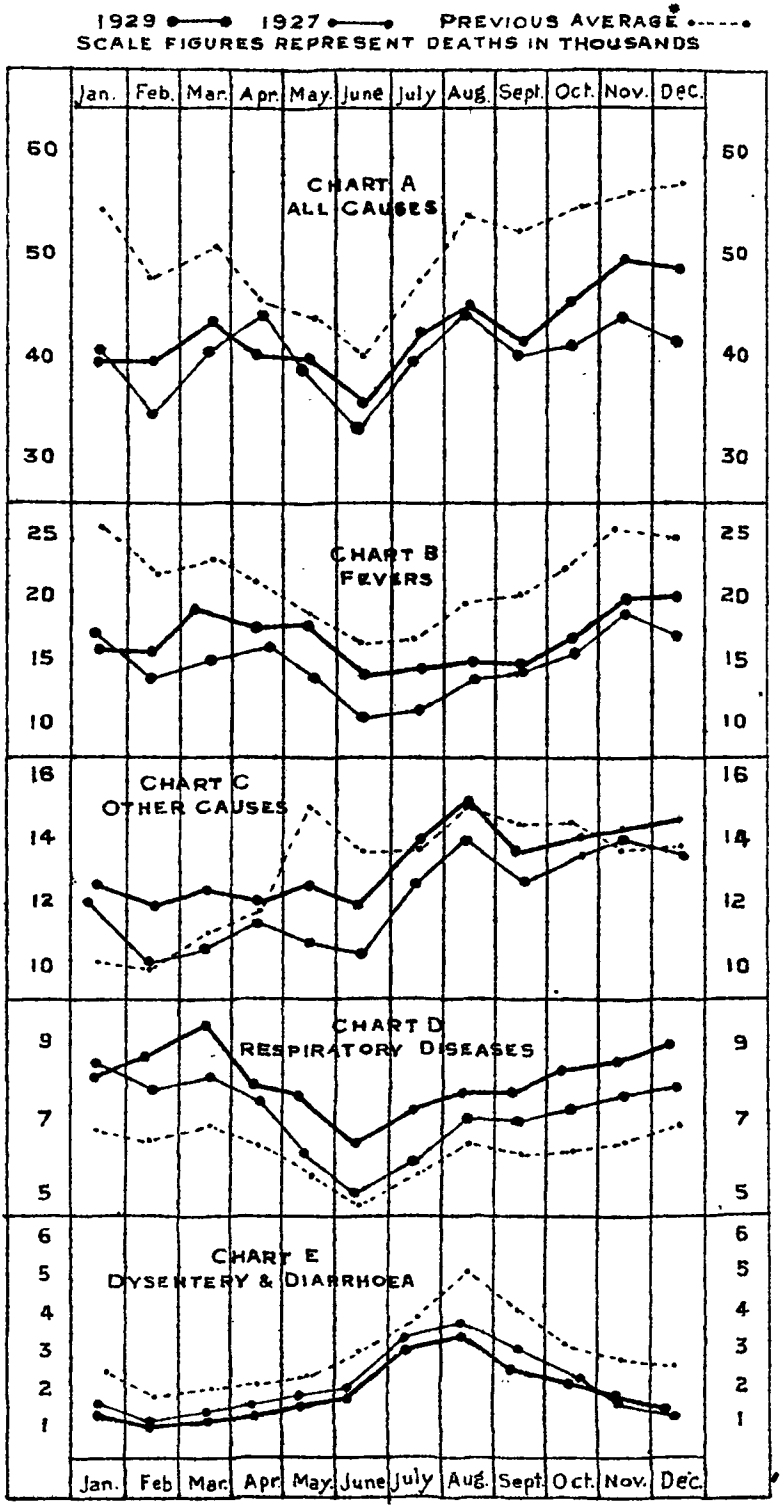
*Konkan.*—There was good rainfall in South Konkan and it was sufficient for the sowing in Northern Konkan. More rain was needed at the end of June in Kolaba District. In July the rainfall was seasonable and in August it was generally sufficient and if anything slightly in excess in parts of Ratnagiri and Kolaba Districts. In September the rainfall though below average, almost everywhere, was timely and well distributed. During the last week of October, rainfall was untimely and mostly excessive in many places of South Konkan but it was generally light in the North.

*Deccan and Karnatak.*—Fairly heavy rain was received in June in the South Deccan and almost throughout the Karnatak and only light and partial rains fell in North Deccan. In Karnatak it was totally absent in the third week of June while the rain received in the last week was not enough. In July there was sufficient rain in the Western part of these two Divisions adjoining the Sahyadries and also in part of Khandesh. In the Eastern portions of these two Divisions, however, there was a moderate rainfall but not enough for the requirements. In August, good rain fell in the North Deccan and the Western portions of these two Divisions while in the Eastern parts there was a long break. Good and opportune rains were received during the third week and at the end of September almost everywhere in these two Divisions. In parts of Dharwar and Kanara more rain was badly needed. In October, the rainfall was in light scattered showers in most of the Deccan Division. The rainfall was more continuous in places in Khandesh, in the Eastern parts of Ahmednagar and Poona Districts and in almost the whole of Sholapur District.

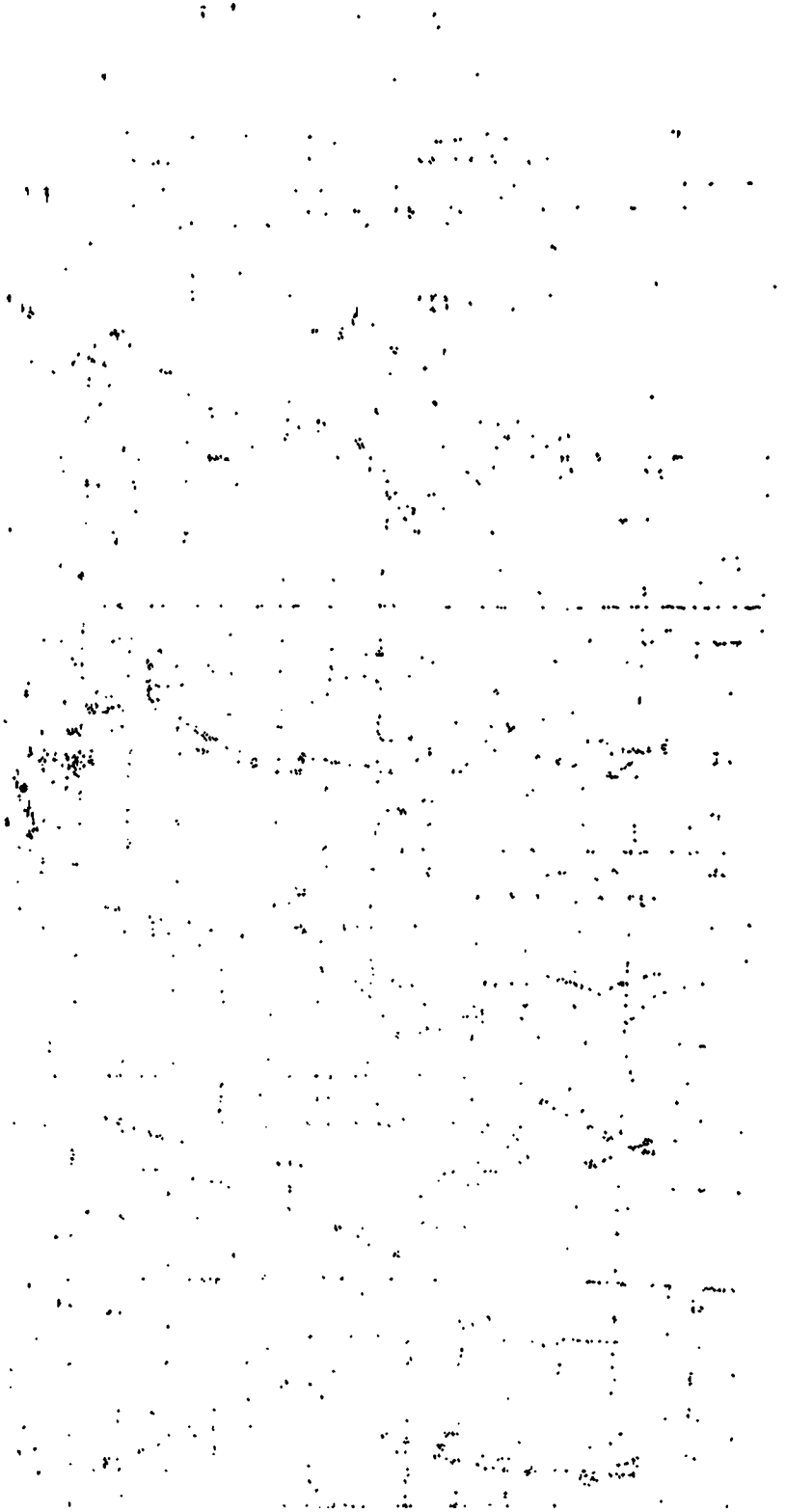
32. The prices of food grains in Bombay, Ahmedabad, Kaira, West and East Khandesh, Kanara, Larkana and Jacobabad were almost the same as during the previous year. In Sind, with the exception of Sukkur, the prices were a little higher in Karachi, Hyderabad, Thar and Parkar and Nawabshah Districts while in the Karnatak and Deccan they were lower by about 25 per cent. and in Satara District they fell by 38 per cent.

# CHART III

## MONTHLY INCIDENCE OF DEATHS FROM CHIEF CAUSES.




1918 (INFLUENZA YEAR) OMITTED IN THE AVERAGE OF CHARTS A. B. & D.



## SECTION VI

### History of Chief Diseases.

*General Remarks.*

33. Following on 1927, the record year of low death-rate, the year under report shows in comparison a high mortality. The health history of the Presidency from 1918, the year of the influenza pandemic, judged by the total mortality figure, is one of steady progress up to 1922, the year of a record of low death-rate (23·61) and thereafter of gradual return to the low standard that normally prevailed. Thus the death-rate figure for 1923—25·89, for 1924—27·63, for 1925—23·66, for 1926—28·55, for 1927—25·71 and for the year under report—27·28 indicate the return to the 1911-15 mean of 27·56. If we look closely into the records of the year, we find that the setback is mainly due to four recurrent death factors, *viz.*, Plague, Fevers, Respiratory Diseases and Other Causes. The further increase in births for the year suggests in itself improvement in condition but it brought along with it more than the usual increase in infant deaths that accompanies.

The increase appears in three separate major headings of causes of death. Thus comparing the figures with those of the preceding year, "Fevers" show an increase of 11 per cent., "Respiratory Diseases" 11 per cent., and "Other Causes" 9 per cent., while "Intestinal Diseases" show a reduction of 9 per cent., and the chief epidemic diseases—Cholera, Small-pox, Plague and Influenza combined show a reduction of 37 per cent. For Influenza, alone of epidemic diseases, a low figure of deaths—228 was recorded, but there is reason to believe that it was more prevalent than in 1927, in a milder form generally, but with virulence reminiscent of the pandemic of 1918 in two or three localised areas. That Influenza persists, is shown by the curves (Chart IV) of deaths from respiratory diseases which is the only general disease heading that continues to compare unfavourably with its pre-pandemic average. Similarly, if fever mortality during the year under report be compared with the figures for 1927 and also with the mean for previous five years it would prove the same thing.

Compared with the mean of previous five years 1923-27, there was a slight rise in mortality under Fevers (10·47 to 10·77), Respiratory Diseases (4·69 to 5·08), and Other Causes (7·88 to 8·46) while all other headings show a small decrease—Cholera (·45 to ·36), Small-pox (·30 to ·27), Plague (·72 to ·71)., and Dysentery and Diarrhoea (1·37 to 1·22).

Details of the various diseases are given under separate headings and further comparison is shown in the table in paragraph 29 and in graphic form in the Charts inserted in this Report.

*Fevers.*

34. Fever mortality shows an increase on the previous year's figures—206,356 deaths (105,856 males and 100,500 females) against 186,543 in 1927 and also on the mean of the previous five years (200,713). The death-rate was 10·77 as compared with 9·73 in 1927 and a quinquennial mean of 10·47.

The annual mortality recorded under this heading in previous years is given in the following table :—

| Year | Fever deaths | Rate per mille | Year | Fever deaths | Rate per mille |
|---|---|---|---|---|---|
| 1901-1910 mean .. | 258,497 | 14·00 | 1922 .. | 197,888 | 10·33 |
| 1911-1915 mean .. | 247,926 | 12·66 | 1923 .. | 196,231 | 10·24 |
| 1916 .. | 262,401 | 13·40 | 1924 .. | 214,563 | 11·20 |
| 1917 .. | 298,919 | 15·26 | 1925 .. | 183,764 | 9·59 |
| 1918* .. | 1,284,013 | 65·55 | 1926 .. | 222,466 | 11·61 |
| 1919 .. | 274,759 | 14·03 | 1927 .. | 186,543 | 9·73 |
| 1920 .. | 266,092 | 13·58 | 1928 .. | 206,356 | 10·77 |
| 1921 .. | 226,100 | 11·80 | | | |

The distribution of fever deaths is shown in Annual Form No. IX.

In the Presidency as a whole all the Registration Districts show an increase of fever deaths over the figures for previous year with the exception of Kanara, Karachi and Thar and Parkar. The highest death-rates were recorded in Larkana (16·70), East Khandesh (15·95), Broach (15·47), Ahmedabad (14·87), Panch Mahals (14·53), Nasik (14·42), Nawabshah (13·67), West Khandesh (13·64), Sholapur (13·23), Thar and Parkar (12·55), Sukkur (12·41), Upper Sind Frontier (11·95), Bijapur (11·11), Kanara (11·08) and Satara (11·01).

The urban death-rate was 6·32 and the rural 11·84 as compared with 6·16 and 10·60 respectively in 1927. The highest urban death-rates for the Presidency proper were recorded in Yeola (24·30), Pandharpur (19·28), Dohad (19·17), Dholka (18·77), Barsi (18·13), Ankleshwar (18·02), Nasirabad (16·90), Godhra (16·68), Sholapur (16·02) Anand (15·97), Dhandhuka (15·76), Kapadvanj (15·75), Borsad (15·35), Nadiad (15·32), Chalisgaon (15·09), Dakore (14·77), Mehmedabad (13·79), Viramgaon (13·37), Gadag-Bettigeri (12·37), Ahmedabad (12·13), Igatpuri (11·93), Chiplun (11·90), Parola (11·76), Jambusar (11·55), Thana (11·26), Guledgud (11·18), and Rander (11·09) and in Sind Garhiyasin (24·63), Ratodero (21·56), Kambar (17·99), Matiari (17·25), Rohri (15·73), Tatta (14·40), Sukkur (13·67), Nawabshah (12·99) and Mirpurkhas (11·27).

Details of sub-headings of deaths from fevers are as follows :—

35. *Malaria.*—Forty-four thousand six hundred and eighty-three deaths from malaria were recorded against 45,641 in 1927. The figures are for Sind 25,015 ; Southern Registration District, 6,808 ; Western 6,015 ; Central 5,909 ; Gujarat 645 ; as compared with 29,663 ; 6,137 ; 3,849 ; 4,809 and 823 respectively, in 1927. 291 deaths were registered in Bombay City against 360 in 1927. A small decrease in the total figure

* Influenza year.

for the Presidency is, therefore, chiefly due to an improvement in Sind. The fall in Gujarat follows a steady rise for the last six years, while the Western shows marked increase in the malaria deaths, which may be attributed to be due to improvement in the methods of registration. Central and Southern Registration Districts also show a small increase over the previous year's figures.

The death-rate from malaria for the Presidency as a whole was 2·33 against 2·38 in 1927. Excluding Sind, the rate was 1·24 against 1·00 in 1927. The urban and rural death-rates were ·74 and 2·72 respectively as compared with ·84 and 2·76 in 1927. As usual the rural death-rates are considerably higher than urban. The highest rural death-rates from malaria were recorded in Sind. Larkana District shows a rural death rate of (12·06), Nawabshah (9·82), Karachi (8·31), Sukkur (8·12), Thar and Parkar (7·81), Hyderabad (6·34) and Upper Sind Frontier (5·59). Except Larkana, all the rural districts show a lower incidence of malaria during the year as compared with the previous year. By urban circles, the highest death-rates from malaria were recorded in Garhiyasin (24·47), Rohri (15·64), Ratodero (11·32), Mirpurkhas (9·55), Tatta (7·90), Tando Adam (6·86), Kotri (6·82), and Larkana (6·66), and the lowest in Sukkur (·07) and Karachi (·18). No deaths were recorded in Shikarpur and Jacobabad towns.

In the Presidency proper, Poona (3·92), Kanara (3·44), Ahmednagar (3·02), Nasik (2·87), Dharwar (2·51), Belgaum (2·62), Thana (1·78), East Khandesh (1·26), and West Khandesh (1·16), returned the highest rural rates and the rates for Jambusar (11·45), Umreth (8·34), Dholka (4·39), Bijapur (3·20), Ilkal (3·12), Chalisgaon (3·09), Malegaon (2·15), Junnar (2·03), and Karwar (2·01); were the highest for towns.

36. *Anti-malarial measures.*—For the treatment of cases of malaria 33 Subordinate Medical Service Officers were appointed on special duty—5 for Kanara, 4 each for Thana and Poona, 3 each for West Khandesh and Panch Mahals, 2 each for Kolaba, Dharwar and Larkana, and 1 each for Belgaum, Nasik, Ahmednagar, Sukkur, Surat, Ratnagiri, Hyderabad and Nawabshah.

In Sind, during the period November 1928 to February 1929, 223 villages were visited by 6 S. M. S. Officers. 4,470 malarial patients and 2,514 other patients were treated by them. During the year under report in all 193,237 malarial patients were treated at the various Civil Hospitals and Dispensaries in Sind-Karachi 50,510 ; Hyderabad 43,365 ; Thar and Parkar 9,067 ; Nawabshah 16,713 ; Larkana 33,186 ; Sukkur 33,187 ; and Upper Sind Frontier 7,209.

In the Southern Registration District, 811 villages were visited by 8 S. M. S. Officers—one for Belgaum, 2 for Dharwar and 5 for Kanara. Out of a total of 15,702 cases treated by them, 10,500 were malaria. Out of 7,805 children examined, 3,813 were found to have enlarged spleens.

In the Gujarat Registration District, the Touring Medical Officers appointed in Amod and Jambusar talukas on anti-malarial work to meet the situation created by heavy rains, visited 79 villages. Out of a

total of 2,360 cases treated by them, 1,415 were malaria. Out of 1,146 children examined, 447 were found to have enlarged spleens.

In the Godhra, Jhalod and Kalol talukas of Panch Mahals District and Mandvi Taluka of Surat District, 141 villages were visited by the S. M. S. Officers. Out of a total of 10,018 cases treated by them 6,234 were malaria. Out of 2,927 children examined, 1,204 were found to have enlarged spleens.

In the Western Registration District, 878 villages in the malarious talukas of the West Khandesh, Thana and Kolaba districts were visited by S. M. S. Officers. Out of a total of 18,662 cases treated by them, 11,710 were of malaria. Out of 10,115 children examined, 2,729 were found to have enlarged spleens.

*Distribution of quinine.*—During the period under report, Government sanctioned (1) Rs. 50,000 for free distribution of quinine, (2) Rs. 50,000 for sale of quinine at Post Offices, and (3) Rs. 20,200 for the cheap sale of quinine treatments.

Out of the first grant, Rs. 22,544 were spent on supplying quinine to the public in the Presidency through the Revenue and other officials, quinine worth Rs. 9,715 being distributed among school children in Sind by the Educational Department. Quinine was also distributed by the Assistant Directors of Public Health, Inspectors of Sanitation and Vaccination and selected vaccinators.

Out of the second grant, Rs. 25,880 were spent in supplying quinine powder for sale at Post Offices. The Superintendent of Yeravda Central Prison credited a total amount of Rs. 35,446 realised from the sale into the Government Treasury.

Out of the third grant, Rs. 9,928 were spent in purchasing parcels of quinine treatments from the Medical Store Depôt. The price recovered from the Officers of the various Departments amounted to Rs. 5,165.

The following examples of comments on the utility of this quinine policy received from District Officers will be of interest :—

The Collector of Hyderabad reports :—

"The general value of quinine as prophylactic measure against malaria was clearly noticeable by its keen demand by the Public."

The Collector of Nawabshah reports :—

"The prophylactic effect of quinine against malaria is generally recognised by the people and is often a sure remedy."

The Collector of Karachi reports :—

"The value of quinine as a prophylaxis is sufficiently appreciated by the illiterate rural population. It is feasible to administer this treatment as a prophylaxis in schools also. The distribution of quinine in the schools was undertaken by the Chairman, District School Board, Karachi."

The Collector of Sukkur reports :—

"The efficacy of quinine in the prevention and cure of malarial fevers is fully recognised and the free distribution of the drug has considerably popularized its use."

The Deputy Commissioner, Upper Sind Frontier, writes :—

"Quinine tablets are much in demand and appreciated by the public."

The Collector of Kaira remarks :—

"The number of parcels sold during the year was less than those sold in the past year owing to less malaria during the year. The public now fully appreciate the usefulness of these treatments."

The Collector of Panch Mahals remarks :—

"Quinine was demanded in great quantity by the villagers in the time of malaria and influenza which shows that it has very powerful effect on fever."

The Collector of Broach writes :—

"The value of quinine as a prophylactic against malaria during malarial season is much appreciated by all classes of people."

The Collector of Surat reports :—

"In Chikhli taluka, Kaliparaj people nowadays take quinine as medicine. The taluka is malarious and hence it is very useful to poor people. In Pardi taluka, the value of quinine as a prophylactic medicine against malarial fever is much appreciated."

The Collector of Thana writes :—

"The use of quinine is made freely and on an extensive scale and this makes it clear that the general aversion towards quinine shown in the past has disappeared and the people have thoroughly understood its value as preventive and curative measure."

The Collector of East Khandesh remarks :—

"Reliable evidence is not available on the value of quinine prophylaxis, but its continued use affords an indication that people must be deriving benefit from it."

The Collector of West Khandesh reports :—

"Educated and advanced classes make use of quinine freely in malarial cases. Backward classes are also making some progress in this connection. They do not object to taking quinine. The services of doctors on anti-malarial duty have proved to be of much value in the Western portion of Taloda, Sakri and Navapur talukas and as the result of their activities, quinine treatment is now highly appreciated by the inhabitants living in these tracts also and is helping in checking malaria."

The Collector of Nasik reports :—

"The use of the quinine has done much good to the people in Peint taluka and other parts of the district where the climate is malarious."

The Collector of Sholapur reports :—

"Owing to the outbreak of malaria in many villages in the District, there was a great demand for quinine. People have now come to know the beneficial effect of quinine and there is a constant demand for fresh supply."

The Collector of Bijapur remarks :—

"Wherever quinine was distributed, it proved of great use in preventing malaria. The people have now learnt to appreciate the efficacy of quinine."

The Collector of Dharwar remarks :—

"From the experience gained in schools it can be assumed that quinine acts as a good prophylactic in malarial season."

The Collector of Kanara reports :—

"From the experiment of quininization carried out in selected local board schools, it was found that the enlargement of spleen disappeared after regular quininization in the majority of school children. The system has been working satisfactorily. The public of this district are fully aware of the value of quinine and the demand is considerable. The scheme of free distribution is much appreciated by the public."

The Collector of Kolaba remarks :—

"No reliable evidence is available on the value of quinine prophylaxis. People in general, however, seem to have been convinced of the use of quinine as an effective measure to check malaria."

The Collector of Ratnagiri reports :—

"There is no reliable evidence but it is believed that the drug is efficacious as a preventive against malaria."

There is thus a consensus of opinion that the drug is advancing in popularity among the people, pills or tablets naturally enough being preferred to the powder. But in view of the serious doubts cast about the prophylactic value of quinine against malaria, the whole policy of quinine distribution in this Presidency needs to be revised in the light of our present day knowledge and it is proposed to do so during the current year.

37. *Enteric Fever.*—2,254 of the "Fever" deaths were registered as due to Enteric as against 1976 in 1927. The accuracy of the figures of death allocated to this sub-head especially in rural areas is not to be relied on. The figures are for the Southern Registration District, 1,244 ; Central 529 ; Sind 306 ; Gujarat 37 and Western 5, as compared with 1,164 ; 438 ; 226 ; 11 and 3 respectively in 1927. 133 deaths were recorded in Bombay City against 134 in the previous year. Among town circles the highest number of deaths were recorded in Shikarpur (94), Poona City (59), Surat (33), Dharwar (31), Karachi (26), Larkana (26), Hyderabad (24), Kambar (23), Bijapur (21), and Ilkal (21).

38. *Measles.*—2,961 deaths were registered against 3,253 in 1927. The Western Registration District recorded the highest number of deaths—1,106 ; Southern 803 ; Central 639 ; Sind 241 and Gujarat 86 ; as compared with 644 ; 629 ; 1,706 ; 91 and 88 in 1927. In Bombay City 86 deaths were recorded against 95 in 1927. The highest death-rates for urban areas were recorded in Parola (3·31), Dharangaon (2·23), Pandharpur (1·55), Jalgaon (1·39), Dhulia (1·16), Dharwar (1·02), and Gadag-Bettigeri (1·02).

The Assistant Director of Public Health, Sind Registration District, reports in connection with Measles in Karachi City :—

"Measles caused 153 deaths as against 37 in 1927 in Karachi City. The Health Officer, Karachi Municipality, says in his report that Measles first broke out amongst a large number of immigrants who encamped on the outskirts of the city near Lyari River bed, Garibahad, Golimar, Trans Lyari and Gizri, etc., with their animals owing to scarcity of water in this district and a large number of them succumbed to death from pneumonia due to the ill-effects of cold and malnutritive conditions. Every effort was made to combat the disease by providing free medical aid in their houses, supplying food and clothings to the necessitous. Leaflets were widely distributed in the affected areas and the public were warned through tom-tom, the public press, and through the school agencies.

*Relapsing Fever.*—No death was reported from this cause during the year.

*Kala-Azar.*—No death from this cause was reported during the year.

### *Influenza.*

39. A review of the Influenza mortality from 1918 shows this year's epidemic to have been the mildest of all since 1926, the total number of deaths recorded during the year under report being 228 as compared with 267 in the preceding year. Out of these Bombay City recorded 77 deaths against 78 in 1927.

The following table shows the estimated number of deaths from Influenza for the first two years since its first appearance and as registered thereafter :—

| Year. | Number of deaths. | Year. | Number of deaths. |
|---|---|---|---|
| 1918 .. .. | 1,041,481 | 1924 .. .. | 578 |
| 1919 .. .. | 39,786 | 1925 .. .. | 192 |
| 1920 .. .. | 16,690 | 1926 .. .. | 362 |
| 1921 .. .. | 3,679 | 1927 .. .. | 267 |
| 1922 .. .. | 1,222 | 1928 .. .. | 228 |
| 1923 .. .. | 991 | | |

The statement does not give a correct idea of the extent of the severity of the infection as the disease has come to be regarded as not a very serious affection when it prevails in a mild form. It is only when the epidemic is severe with the consequent rise in death-rate that attention is drawn to it. Most of the deaths during a mild epidemic are recorded under the convenient heading of Fevers or some time under Respiratory Diseases which are frequently the sequalæ of the malady.

In the Western Registration District, 12 deaths were reported from 6 villages of 5 talukas in Thana District, 5 deaths from 1 village in Sinnar taluka of Nasik District, 1 death from Deolali Cantonment, 4 deaths from 1 village of Sindkheda taluka in West Khandesh District and one death from 1 village of Panwel taluka in Kolaba District. In all 10 villages were affected and reported 93 attacks and 23 deaths.

In the Central Registration District, 29 deaths were reported. Out of these, 12 deaths were reported from Pathardi peta of Ahmednagar District. The type of the disease was mild. 4 deaths were reported from Ratnagiri town and one death occurred in each of Vengurla and Lonavla towns. 9 deaths occurred in village Zapade in Ratnagiri taluka. The Assistant Director of Public Health, Central Registration District, paid a special visit to Ratnagiri, investigated the occurrence of the disease with the Civil Surgeon, and devised preventive measures to check its spread.

In the Southern Registration District, 39 deaths were reported as against 27 in the previous year. Of these 39 deaths, 32 were from rural and the remaining 7 from the urban areas. Dharwar, Bijapur and Ilkal towns recorded 1, 1 and 5 deaths respectively. In the rural circles, only 5 villages were affected. The epidemic was prevalent for about a month in Bhavihal village in Sampgaon taluka of the Belgaum District and in Kallur village of Gadag taluka in Dharwar District reporting 30 attacks and 3 deaths and 75 attacks and 2 deaths respectively. 8 attacks and 3 deaths only were reported from Guddinni village of Bagewadi taluka in the Bijapur District. Kanara District was almost free and escaped with 3 deaths, one in each of the three rural circles of Sirsi, Siddapur and Ankola. In all these cases the epidemic was localised and of a mild type. Leaflets giving instructions for checking the spread of the epidemic were distributed to the village officers, Mamlatdars and the Presidents of the Municipalities concerned, isolation of the patients and regular washing out of the air passages as per instructions in the leaflets were recommended.

In the Gujarat Registration District, there were 139 reported cases and 15 deaths from Influenza against 649 cases and 83 deaths in 1927. Out of these 139 cases and 15 deaths, 86 cases and 1 death were reported from Dakore town, 33 cases and 1 death in 3 villages of Godhra taluka and one case and one death from Shivrajpur village of Halol taluka in Panch Mahals District and 7 cases and 7 deaths from Por village of Daskroi taluka in Ahmedabad District, and 11 cases and 4 deaths from Ahmedabad City. The first case during the year was reported from Ahmedabad City.

In Sind Registration District, 45 deaths from Influenza were reported against 26 in 1927. Of the 45 deaths, 42 were reported from Thar and Parkar, 1 from Karachi and 2 from Hyderabad District. In all 2 towns and 58 villages were affected and the total number of attacks and deaths was 534 and 45 respectively. One fatal case of Influenza, a man aged 70, was reported from Karachi City on 10th December 1928. No more cases were reported but it is possible that Influenza was endemic in Karachi City in a mild form and in the absence of high mortality from this disease itself, escaped notice. The fact whether "Influenza was the cause of high mortality from Pneumonia in Karachi City in December 1928" has been dealt with under Respiratory Diseases—Pneumonia. Influenza broke out in Hyderabad Central Jail on 2nd March 1928. 2 fatal cases were reported from Hyderabad town. Influenza was prevalent in Thar and Parkar District from 29th January to 22nd April 1928. 393 cases were reported of whom 42 died. The disease was also prevalent in Naushahro taluka of Nawabshah District from 27th February to 8th April 1928. In all 138 cases with no death were reported from that taluka.

In connection with the epidemic of Bombay City, the Executive Health Officer, reports :—

"The type of the disease was mainly respiratory but some cases of the abdominal type were also seen. Leaflets instructing the public what to do for the prevention of the disease were distributed and they were advised to avail themselves of the medical relief offered at the Municipal Dispensaries and Hospitals."

*Respiratory Diseases.*

40. There was considerable increase in mortality from Respiratory Diseases as compared with the previous year and also with the mean, the total deaths recorded being 97,428 (52,962 males and 44,466 females) against 87,963 in 1927 and 89,897, the mean of previous five years.

The mortality list for previous years is as follows :—

| Year. | Deaths. | Rate. | Year. | Deaths. | Rate. |
|---|---|---|---|---|---|
| 1901-1910 mean .. | 57,723 | 3·12 | 1922 .. .. | 82,682 | 4·31 |
| 1911-1915 mean .. | 62,181 | 3·17 | 1923 .. .. | 84,334 | 4·40 |
| 1916 .. | 79,882 | 4·08 | 1924 .. .. | 91,103 | 4·75 |
| 1917 .. | 90,667 | 4·63 | 1925 .. .. | 83,047 | 4·33 |
| 1918 .. | 119,680 | 6·11 | 1926 .. .. | 103,038 | 5·38 |
| 1919 .. | 98,633 | 5·04 | 1927 .. .. | 87,963 | 4·59 |
| 1920 .. | 96,486 | 4·93 | 1928 .. .. | 97,428 | 5·08 |
| 1921 .. | 93,336 | 4·87 | | | |

The increase over the years preceding the Influenza pandemic (1918) is attributed partly to the actual number of deaths and partly to improved registration of deaths by causes.

The death-rate was 5·08 against 4·59 in 1927 and a quinquennial mean of 4·69. The urban rate (8·48) greatly exceeds the rural (4·26) as compared with 7·98 and 3·77 in 1927. The death-rate under this heading is still with the exception of " Fevers " and " Other Causes " the highest in the Presidency.

Gujarat Registration District recorded the highest number of deaths—25,525, Central 21,639, Western 20,600, Southern 11,028 and Sind 6,658 ; as compared in that order with 23,406 ; 20,907 ; 16,209 ; 10,271 ; and 5,706 in 1927. Bombay City recorded 11,978 deaths as against 11,464 in 1927.

The highest rates were recorded from the Collectorates of Surat (10·48), Kaira (10·42), Broach (8·96), Ahmedabad (7·95), Nasik (6·44), Ahmednagar (6·77), Poona (6·46), Karachi (5·59), Kolaba (5·57), Bombay Suburban (5·30), Thana (5·18), West Khandesh (4·41), East Khandesh (4·40), Ratnagiri (4·09), Sholapur (3·99) and Belgaum (3·98).

Urban areas recorded much higher rates than the rural, the result of congestion and consequent facility for the spread of these diseases and probably also due to more correct allocation of deaths under this head. There is a great need for better education in the methods of prevention of these diseases, for the relief of congestion in the big towns, and the provision of greater facilities for treatment.

The highest rates for urban areas were recorded in Umreth (16·76), Ahmedabad (15·06), Surat (14·59), Poona City (14·11), Kirkee Cantonment (11·77), Viramgaon (11·69), Karachi (11·53), Hyderabad (11·37), Kaira (10·87), Dhandhuka (10·55), Nadiad (10·78), Jambusar (10·37), Pandharpur (10·00), Dakore (9·89), Umarkot (9·52), Lonavla (9·06), Junnar (8·95), Kalyan (8·25), Khed (7·99), Gadag-Bettigeri (7·90), Islampur (7·71), Yeola (7·54), Mehmedabad (7·54), Broach (7·46), Bhiwandi (7·30) and Sehwan (7·23).

41. *Phthisis.*—21,588 deaths from this cause were registered equal to a death-rate of 1·13 for the Presidency as a whole. The corresponding figures for 1927 were 20,905 and 1·09 respectively. By Registration Districts, the total figures were Western 6,059 ; Central 5,766 ; Gujarat 4,619 ; Southern 2,586 and Sind 1,010, as compared with 5,307 ; 6,048 ; 5,168 ; 2,633 and 1,021, respectively, in 1927. In Bombay City deaths from phthisis were 1,548 equal to a death-rate of 1·35 compared with 1,557 or a death-rate of 1·36 in the previous year.

The urban death-rate was 1·72 and the rural ·98 against 1·75 and ·93 respectively, in the previous year. The highest death-rates for urban areas were recorded in Chalisgaon (4·67), Alibag (4·19), Dharangaon (3·91), Erandol (3·84), Ahmedabad (3·63), Poona City (3·24),

Belgaum (2·93), Surat (2·85), Panwel (2·89), Junnar (2·85), Ahmednagar (2·81), Bhiwandi (2·79), Nadiad (2·73), Karachi (2·42), Ratnagiri (2·41); Nasik (2·39) and Kalyan (2·22).

The highest death-rates for rural areas were recorded in the districts of Kolaba (3·42), Ratnagiri (2·33), Thana (2·03), Kaira (1·96), Bombay Suburban (1·34) and Ahmedabad (1·28).

Of the 285 deaths recorded from phthisis in the Kanara District, 240 were in rural circles and the remaining 45 in town circles. Of the 240 deaths in rural circles 139 occurred in the below-ghat talukas and the remaining 101 in above-ghat talukas. Although the below-ghat or sea-coast talukas are generally considered healthier than those above-ghat, the death-rate from this disease is higher in the former. The probable explanation of this has been given in previous reports and lies in the fact that the large number of labourers in Bombay mills is recruited from the below-ghat talukas. The high cost of living in Bombay added probably to the unhealthy environments under which the poor classes have to live and work there, are conditions which favour contracting such diseases. Once infected and unable to work, they return to their native villages where they die and thus swell the deaths under phthisis in below-ghat talukas, besides propagating it among those they come in contact with.

These remarks apply also to Ratnagiri, Kolaba and Thana districts which supply labour to Bombay City.

In Hyderabad town, 112 deaths from consumption were recorded during the year under report as against 175 in 1927 and 224 in 1926. It is gratifying to note that some definite attempts to reduce the spread of the disease. have been made by the Municipality by the opening of a Tuberculosis Dispensary and appointing of an officer from 1st May 1926 to attend to all Tubercular patients in their houses free of charge and also to the patients attending the dispensary.

*Tuberculosis Institutions.*—The Anti-Tuberculosis Dispensary in Karachi City continued to do good work. During the year under report, 21,986 patients were treated. Of these, 15,837 were definitely Tuberculosis while 6,149 were kept under observation or suspected of tuberculosis. In the preceding year, 16,886 patients were treated of whom 12,203 were definitely tuberculosis and 4,683 were kept under observation. Seven hundred and ninety-two new patients were admitted during the year as against 595 in the previous year.

In Hyderabad town, 1,196 patients were treated at the K. T. Tuberculosis Dispensary. Of these, 377 were definitely tuberculosis while 819 kept under observation or suspected of tuberculosis.

The marked variation in the prevalence of phthisis in different cities of this Presidency, and often in different communities of the same city, needs special investigation. Phthisis is notoriously a "social disease" depending largely on social customs and social intercourse for its spread. I came across a case in Amsterdam recently where there were seventeen families living in a tenement-house and sixteen out of these were infected

by a single individual, the seventeenth escaped because they were not on speaking terms with the others. Incidents such as this show the influence of social intercourse on the spread of phthisis and I am most anxious to have this inquiry undertaken when funds become available.

42. *Pneumonia.*—Twenty thousand nine hundred and ninety-one deaths were registered equivalent to a death-rate of 1·09 per mille of population for the Presidency as a whole. The corresponding figures for 1927 were 18,289 and 0·95, respectively. Sind Registration District recorded the highest number of deaths—4,728; Gujarat 3,823; Western 2,678; Central 1,632 and Southern 341; as compared with 3,681; 3,310; 1,975; 1,428; and 431 respectively, in 1927. Bombay City registered 7,789 pneumonia deaths against 7,464 in 1927.

The urban death-rate was 3·65 and the rural ·48 against 3·30 and 0·39 respectively, in 1927. Amongst cities recording the highest urban death-rates were Poona (8·12), Surat (7·64), Hyderabad (7·52), Umarkot (7·38), Kirkee Cantonment (7·26), Karachi (7·00), Nadiad (6·45), Nasik (5·55), Lonavla (5·44), Sehwan (5·42), Matiari (5·38), Bulsar (5·08), Kotri (3·53), Mirpurkhas (2·80), Dhulia (2·43), Larkana (2·37), Tando Adam (2·32), Bassein (2·12), Bandra (2·09) and Bhiwandi (2·05), while the highest rates for rural areas were recorded in the Districts of Thar and Parkar (2·34), Surat (2·14), Bombay Suburban (1·98), Karachi (1·61), Broach (1·55), Thana (1·53) and Nawabshah (1.08).

With regard to the prevalence of Pneumonia in Karachi City, the Assistant Director of Public Health, Sind Registration District, reports :—

"Deaths due to pneumonia in Karachi have been a feature of the mortality statistics of this city for some years. Since the year 1923 the pneumonia mortality has remained at a high level and since the year 1926 it is rising every year till the year 1928 when it has attained its highest level. As regards mortality incidence of pneumonia, the year 1928 is characterised by the fact that the mortality from pneumonia in Karachi during December has exceeded that of any other month in the year, no less than 215 deaths being returned for the month of December 1928. Usually January or rarely February has returned the highest number of deaths. The highest number of deaths in December prior to 1928, being the year 1923 when 159 deaths were returned for December. The year 1928 is also characterised by the highest mortality in February during the last 10 years."

Is Influenza the cause of the high (unprecedented for the month) mortality from pneumonia in Karachi City in December 1928 ?

The facts so far gathered may be summarised as follows :—

1. The pneumonia mortality in Karachi in 1928 has been the highest so far recorded during the last 10 years.

2. Deaths from pneumonia have been recorded for every month in 1928 and the pneumonia deaths in December 1928 have exceeded the January deaths.

3. The year 1928 is also exceptional in recording the highest number of deaths in December of any year since 1919. The rise in the number of deaths from pneumonia in December has been sudden and exceptional for the month.

4. The incidence of pneumonia amongst the population in different age periods in December shows a high incidence in age periods 5-10 and 20 and 30 in addition to a slightly higher rise in all age periods with the exception of the age periods 0-1, 40-50 and 60 and above as compared with the October figures.

5. The month of December 1928 is also characterised by showing an unusual mortality from measles, no less than 106 deaths having occurred this month.

6. During the months of November and December 1928, there have been prevalent in Karachi meteorological conditions, characterised by a high relative humidity figure, combined with a wide difference in the maximum and minimum temperatures.

7. Almost all quarters show a higher incidence of pneumonia deaths the ratio varying in different quarters. There has been no marked difference between quarters situated in the centre of the town and those considered suburbs. Out of 34 quarters, 9 quarters show a higher incidence of pneumonia in December than in February, 5 have shown the same incidence as in February, the month of highest incidence of pneumonia. These 14 quarters have returned 157 out of 215 deaths, *i.e.*, 73 per cent. of the total pneumonia deaths returned.

8. Karachi has been visited by about 4,000 famine stricken immigrants and their cattle probably in October and December but by the beginning of January 1929 most of them had returned to their homes. Their temporary encampments were round about Lyari.

From the facts summarized above, in my opinion it is possible to give an epidemiological explanation of the abnormally high incidence of pneumonia mortality in Karachi City during December 1928. In my opinion the above facts furnish very strong evidence in favour of Influenza being the cause of the abnormal mortality.

The following facts have emerged from a study of pandemic of Influenza in 1918 in India :—

1. The disease has probably an endemic home in India as it has been ascertained to have in Canada and other countries.

2. The transmission of the disease is favoured by meteorological conditions which are characterised by a high relative humidity and wide divergence between the maximum and minimum temperatures.

3. The incidence of the disease was found to be higher in the two extremes of life in the first wave and in the second wave, it was found to have a peculiar higher incidence amongst age period 20-30.

4. Usually the suburbs are more affected than the centre of the town, but in cases where the centre of the town is inhabited by persons affected by adverse economic conditions, this part also suffers as badly as the suburbs.

In my opinion, the facts elicited in the enquiry into the abnormal mortality from pneumonia in December 1928 do not in any way fail to satisfy these epidemiological facts regarding Influenza. In the absence

of bacteriological evidence to the contrary, I am of opinion that Influenza is endemic in Karachi and suddenly assumed an epidemic form in December owing to favourable meteorological conditions. The high incidence of pneumonia deaths in the age period 1-5 is probably due to pneumonia being an early complication of measles and dominating the picture in these cases, so that these cases have been registered as pneumonia. The economic conditions judged by the overcrowding, etc., are certainly most favourable to the incidence of Influenza in the quarters returning the largest number of pneumonia deaths.

The study of mortality statistics in the Karachi District Prison affords also very strong corroborative grounds to suspect that influenza bacillus to be the main cause of the pneumonia prevalent in Karachi.

The prevalence of relatively high mortality from pneumonia throughout the year is also in my opinion very suggestive of Influenza being endemically present in Karachi and that given favourable conditions is likely to assume epidemic proportion.

The occurrence of concurrent epidemic of measles is specially unfortunate as it has enhanced the already high mortality due to Influenza. Such a combination of epidemics is not unknown, but the point of epidemiological interest is the shifting of the month of incidence from February or March to December.

From the few cases, I saw and those diagnosed by practitioners leaves no doubt as to the disease being measles. Typhus fever was thought of but the clinical picture is quite different from that of measles and would have been readily recognised. There is no evidence to suspect pneumonic plague. The general incidence in all quarters is against it or has there been any rat mortality in the wake of the high incidence of pneumonia mortality which is unusually the characteristick feature of pneumonic plague.

It needs only remain to note that everything possible to relieve the suffering caused to poor patients is being done by the Municipal Health Department and precautionary measures are being advised by means of pamphlets, etc. It is a pity that hospital treatment is not generally availed of by the patient as was generally noted by me in Lyari quarter.

Travelling Dispensaries have been started but relief thus given is bound to be meagre indeed. Special visiting nurses are likely to do more good and be useful in prevention of the spread of the disease by seeing to the patient's excreta, etc., sanitarily disposed of. This is the only alternative in the absence of Hospital treatment. Cinema and theatre goers should be warned of the special risks they run and relief measures and house visiting in poorer quarters be continued throughout February.

*Cholera.*

43. The number of deaths recorded from Cholera was 6,881 against 26,153 in 1927 and 8,748 the quinquennial mean. The death-rate was ·36 against 1·36 in 1927 and a quinquennial mean of ·45. The urban

and rural death-rates for the Presidency as a whole were ·19 and ·40 respectively.

The following table gives the deaths recorded in previous years since 1900 :—

| Year | No. of deaths | Year | No. of deaths |
|---|---|---|---|
| 1900 .. .. | 163,200 | 1915 .. .. | 377 |
| 1901 .. .. | 13,600 | 1916 .. .. | 19,841 |
| 1902 .. .. | 3,229 | 1917 .. .. | 17,003 |
| 1903 .. .. | 1,825 | 1918 .. .. | 8,834 |
| 1904 .. .. | 13,156 | 1919 .. .. | 51,551 |
| 1905 .. .. | 5,396 | 1920 .. .. | 2,047 |
| 1906 .. .. | 46,119 | 1921 .. .. | 3,521 |
| 1907 .. .. | 7,656 | 1922 .. .. | 2,768 |
| 1908 .. .. | 1,759 | 1923 .. .. | 9,221 |
| 1909 .. .. | 28,714 | 1924 .. .. | 8,236 |
| 1910 .. .. | 3,694 | 1925 .. .. | 57 |
| 1911 .. .. | 5,817 | 1926 .. .. | 73 |
| 1912 .. .. | 64,505 | 1927 .. .. | 26,153 |
| 1913 .. .. | 5,134 | 1928 .. .. | 6,881 |
| 1914 .. .. | 17,779 | | |

It will be noted that the epidemics of 1900, 1906, 1912 and 1919 were of great severity. All were years of abnormal monsoon. The year 1927 was also a bad cholera year. In 1925 and 1926 there were 57 and 73 deaths respectively. Although the disease appeared to have died out after 1924, cases did actually occur during the next two years shown above and these cases though few in number were not confined to any one part of the Presidency. The epidemic of 1928 though not so severe as that of the year previous, still affected all the parts of the Presidency except Gujarat.

*Distribution.—Vide* Annual Form No. VII.

In the Presidency proper, all the Collectorates with the exception of Broach, Kaira, Panch Mahals and Ahmedabad were more or less affected, while in Sind, 3 out of the 7 districts reported deaths. The epidemic was chiefly confined to the districts of Satara (1,676 deaths), Poona (919), Ahmednagar (909), Sholapur (844), East Khandesh (799), Nasik (733) and West Khandesh (340). Bombay City recorded 32 deaths against 80 in the previous year. It prevailed to a greater or lesser extent in 152 Registration Circles infecting 1,102 villages. The epidemic reached its height in July during which 2,559 deaths occurred and had practically ceased by November, when 2,120 deaths were reported. In December there were only 72 deaths.

44. To take the Registration Districts separately, their history is as follows :—

The heaviest incidence of cholera was in the Central Registration District. It was responsible for 4,404 deaths against 9,637 in 1927. The death rate was ·95 against 2·08 in 1927, the quinquennial mean

being ·78. 668 towns and villages were affected. The highest mortality was recorded in July. Cholera prevailed in all the five Districts in this Division, Satara and Sholapur being the worst and Ratnagiri the least affected. The infection first entered this Registration District from Baramati town in Bhimthadi Taluka of the Poona District in March. In April five villages on the river-side were infected. As palkhis going to Pandharpur pass through this taluka, three Medical Officers were appointed, with a view to stamp out the epidemic before the movements of the Palkhis, but unfortunately cholera did not cease. In April, a few cases were reported from Satara and Sholapur districts. In June, Ahmednagar and Ratnagiri Districts were also affected. The epidemic reached its height in July.

As some of the halting places of the palkhis were infected, Medical Officers and Inspectors of Sanitation and Vaccination were sent with the Palkhis, and they were not allowed to halt in these villages. These officers in charge of Palkhis sterilised water-supplies along the routes.

One case of cholera was detected among the followers of the Alandi Palkhi and two among the Nivrittinath Palkhi.

Since cholera was reported from some of the halting places, the route of these Palkhis, on the return journey, had to be diverted. Jamkhed and Shevgaon talukas of the Ahmednagar District, Sholapur, Barsi, Madha, Pandharpur and Malsiras talukas of the Sholapur District, Poona Cantonment and Ahmednagar town were infected by returning pilgrims.

In Kopargaon Taluka most of the villages affected were from among those on the Godavari river.

Cholera also broke out in some river-side villages in Rahuri, Bhimthadi, Dhond, Satara, Koregaon, Karad and Wai talukas.

Scarcity of rain was responsible for infection hovering over the affected places for a long period, and adequate means for sterilising the water in those places where the supply was taken entirely from a stream could not be adopted since the only satisfactory method of dealing with cholera in river-side villages is either to sink in tube wells and allow the people to take water from these only, after it is sterilised, or provide a "chloro-boat", a recent invention of Messrs. Patterson and Company for sterilising the margins of a stream or tank.

Nine Medical Officers on cholera duty were appointed. They inoculated 13,606 persons. The Medical Officers in charge dispensaries did 706 inoculations. All these Medical Officers also treated the sick, permanganated water supplies, and gave necessary advice on cholera preventive measures.

Potash permanganate pills were kept in stock in the Assistant Director of Public Health, Central Registration District's Office, and were supplied to the taluka officers immediately on demand.

In Poona District, there were 1,840 attacks and 919 deaths equal to a death-rate of ·93. 134 villages and 5 towns were affected. The first case occurred in Baramati town on 19th March 1928. No more cases

were reported. In April five villages on the Nira river in Bhimthadi Taluka were affected. Only 2 cases were reported from Walha in Purandhar Taluka. By the end of May it appeared that the infection in Bhimthadi Taluka would die down but by the beginning of June new villages were again infected. In June, the infection spread to Purandhar, Haveli and Indapur talukas and Sirur and Dhond pethas. In July, Khed and Mawal talukas were affected. The epidemic reached its height in July and declined considerably in August. Mulshi Peta was infected in October. Out of 854 deaths recorded in the rural circles, 238 were reported from Purandhar Taluka. Junnar and Ambegaon rural circles escaped infection. Poona City was first infected from Kangaon village in Dhond Peta on 22nd June 1928, and up to the 21st December returned 46 attacks and 33 deaths.

Only 6 attacks were reported from Poona Cantonment, 4 attacks and 2 deaths from Poona Suburban and 50 attacks and 30 deaths from Baramati town. Other towns were free.

In Sholpaur District, there were 1,790 attacks and 844 deaths equal to a death-rate of 1·14. 111 towns and villages were affected. Cholera first broke out in Malsiras Taluka in April, the infection having come from Shingnapur in Satara District. The outbreak was confined to Malsiras in May. In June, Madha, Karmala and Pandharpur talukas were affected. The remaining 3 talukas were infected in July. The epidemic reached its maximum in July and declined in August. By the middle of August, Pandharpur and Malsiras talukas were free. Except for one death reported from Sholapur Taluka in November, the district was free by the end of October. The epidemic was severe in Barsi Taluka which recorded 282 deaths. It is significant that though 182 attacks and 125 deaths occurred in Pandharpur Town and infection was carried to some villages by the returning pilgrims the taluka itself got off very lightly, recording only 27 deaths. Barsi and Sholapur towns which got infected from Pandharpur returned 47 attacks and 30 deaths and 16 attacks and 10 deaths respectively.

The incidence of this disease in Satara District was very high, 3,125 attacks and 1,676 deaths were recorded equal to a death-rate of 1·64. 217 towns and villages were affected. Shingnapur in Man Peta got infected in the middle of April. The Assistant Director of Public Health visited the place and recommended the usual precautions. The disease died out by the end of the month. In May some villages in Man Peta and Wai and Koregaon talukas were affected. Satara, Walwa and Patan talukas were infected in June and the rest in July.

Half the number of the total deaths from cholera were recorded during this month. The epidemic declined in August. By the end of August 6 talukas were free. The district was free from November. Koregaon Taluka was comparatively badly infected and recorded 546 attacks and 378 deaths. Three town circles were affected and recorded 85 attacks and 69 deaths. Ashta and Islampur towns escaped infection.

In Ahmednagar District, 2,213 attacks and 909 deaths were reported. The death-rate was 1·26. Hundred and thirty towns and villages were affected. Parner taluka and Nagar Cantonment were free. Except for one case reported from the village Islak in Ahmednagar taluka on 29th March 1928, the district was free till 15th June 1928. Ahmednagar, Shrigonda and Newasa talukas were infected in June. In July all the other talukas except Akola were infected. The highest mortality was recorded in this month. In August Akola taluka was infected. There was a slight decrease in this month. The epidemic declined in September and by the end of November the district was free. Shevgaon taluka was badly infected and returned 463 attacks and 172 deaths. Next to it was Kopergaon taluka which returned 455 attacks and 179 deaths. Ahmednagar and Sangamner towns were infected and returned 9 attacks and 7 deaths and 21 attacks and 6 deaths respectively.

Ratnagiri District was lightly affected—88 attacks and 56 deaths were reported from 17 villages. From June to November 5 rural circles and Ratnagiri town were affected. Two deaths were reported from Ratnagiri town in July. They were imported from Pandharpur. No more cases occurred.

Next to the Central, the Western Registration District was badly affected. Compared to the year preceding the incidence of cholera for the year under report was low in East Khandesh, Thana, Bombay Suburban and Kolaba and high in West Khandesh and Nasik Districts. There were 5,049 attacks and 1,963 deaths equal to a death-rate of ·49 as compared with 2,161 and ·54 respectively in the previous year. All the Collectorates were more or less affected to the extent of 56 Registration Circles with 320 villages. Sporadic cases of cholera were reported from a few villages in East and West Khandesh, Thana and Bombay Suburban Districts during the months of January, March, April and May 1928 recording total number of 20 attacks and 8 deaths, but these cases had no bearing on the regular monsoon epidemic in any of the districts. The disease appeared in an epidemic form from 27th June 1928. The first two cases were reported from Jalgaon Khurd a village about 4 miles from Jalgaon on 27th June 1928. There were 14 attacks and 3 deaths between 27th June and 5th July 1928. Later on 9 attacks and 2 deaths were reported from Anturli village in Edlabad peta, between 28th June and 2nd July 1928, subsequent to these dates outbreaks of cholera were reported from Kochur Budruk and Kochur Khurd in Rawer taluka. These two villages are situated about two miles from Sawda in Rawer taluka. The villages are near each other and the combined population of both is about 1,000 . About 25 persons from these villages went to Pandharpur for the Ashadhi Fair. While returning, some of them were attacked by cholera and thus the infection was imported from Pandharpur, or some infected place enroute. There were 22 attacks and 8 deaths in these two villages from the 28th June to the 9th July 1928. These two villages were thus responsible for the spread of the disease in this district. Out of 51 villages affected, pilgrims from Pandharpur were responsible for the outbreaks at 8 places. The order in

which infection spread, according to dates, showed that the wave of infection passed from place to place through human intercourse. Contamination of water supplies and the ubiquitous house-fly also played their usual role in spreading the disease.

In East Khandesh, 2,250 attacks and 799 deaths were reported equal to a death-rate of ·74. The disease appeared in 13 rural and 10 town circles and was reported from 121 villages. Highest death-rates for rural circles were recorded in Rawer (1·46), Chalisgaon (1·35) and Pachora (1·33) while for urban circles Dharangaon, recorded the rate of (2·56), Chalisgaon (2·25), Jalgaon (1·86), Erandol (1·60), Parola (1·33) and Chopda (1·29). In West Khandesh the disease appeared in 8 rural and 2 town circles and was reported from 58 villages. There were 944 attacks and 340 deaths equal to a death-rate of ·56. Highest death-rates for rural circles were recorded in Taloda (2·11), Nandurbar (1·56) while for urban circles, only Nandurbar town recorded a death-rate of ·94. In Nasik District the disease appeared in 10 rural and 4 town circles and was reported from 119 villages. There were 1,733 attacks and 733 deaths equal to a death-rate of ·89. Highest death-rates for rural circles were recorded in Niphad (3·03), Dindori (1·28) and Yeola (1·16), while for urban circles Malegaon recorded a death-rate of 3·21. In Thana District the disease appeared in 5 rural and 1 town circles and was reported from 9 villages. There were only 62 attacks and 46 deaths. In Bombay Suburban, only South Salsette taluka and Bandra town were affected. There were only 9 deaths. In Kolaba only Panwel and Pen talukas were affected. There were 48 attacks and 36 deaths.

In addition to the usual precautionary measures against cholera, 7,920 persons were inoculated with anti-cholera vaccine.

Medical Officers on cholera duty were appointed. Out of 266 persons treated with Tomb's Mixture, 214 recovered and 52 died. Out of 1,006 persons treated with potassium permanganate pills, 757 recovered and 249 died.

Southern Registration District was very lightly affected with cholera only 230 deaths were reported against 14,063 in the previous year when the disease was widespread throughout the Division in an epidemic form. The disease prevailed in all the districts except Dharwar which was practically free, only 8 deaths being reported from 4 villages in this district. Among the remaining three, Bijapur was badly affected and was responsible for nearly half of the total number of deaths. Belgaum and Kanara recorded 83 and 35 deaths respectively. The source of infection was from Pandharpur among the returning pilgrims. Usual precautionary measures were taken. Two Medical Officers on cholera duty were appointed. Two thousand two hundred and seventy-one inoculations were performed by different Dispensary Officers and by the Special Medical Officers appointed on cholera duty.

Gujarat Registration District was also very lightly affected with cholera only 53 cases and 38 deaths were reported against 201 and 79 respectively, in the previous year. Surat was the only district affected

with cholera during the year under report. The remaining 4 Collectorates enjoyed an absolute freedom from cholera during the year. Out of 9 registration circles in the Surat district, 4 were infected. Six, villages reported deaths. Chikhli taluka reported 32 attacks and 23 deaths, Bulsar 16 and 11, Pardi 3 and 2 and Jalalpur 1 and 1. In Surat City the Medical Officer of Health reported one case imported from Karachi *via* Ajmer. The patient was treated in the Civil Hospital, Surat, where he died. At all the places except Vapi in Pardi taluka and Surat City, the origin of the outbreak was indigenous. Three cases reported as cholera from Vapi were found, on further enquiry, not to be cholera.

Sind recorded 214 deaths from cholera during the year under report, against 133 in 1927. Larkana was badly affected—291 cases and 193 deaths were reported. Upper Sind Frontier reported 20 cases and 11 deaths. Sukkur 18 cases and 9 deaths and Karachi District one case and one death. Hyderabad, Nawabshah and Thar and Parkar were quite free from the disease. From the 15th May to the 1st September Sind was entirely free from cholera. The disease occurred in Warah taluka, Larkana District, on 1st September and then it spread to other districts through human agency. In Larkana District, canal water was reported to be responsible for spreading infection.

Cholera was reported from 5 talukas of Larkana and two towns (Larkana and Kambar) between 1st September and 22nd December 1928. In all 37 villages and 2 towns were affected. In Jacobabad District cholera was reported from 4 talukas between 1st September and 11th November 1928. Four villages were infected. In Sukkur, only Rohri taluka and Shikarpur town were affected. It spread only in 2 villages and one town between 26th September and 28th November 1928.

The usual precautionary measures were carried out. Dr. Tomb's Mixture was extensively tried in Sind with very good results both as a prophylactic and curative.

About 500 inoculations against cholera were performed in the Larkana District. Cholera pills were extensively used in Larkana District with good results.

The Assistant Director of Public Health, Sind Registration District, reports :

"The epidemic of cholera in Sind in 1928 is peculiar in the following respects :—

1. Its unusual seasonal prevalence, *i.e.*, September to December, the usual cholera season being May to August.

2. It was confined to only few talukas, 5 of Larkana district, 3 in Jacobabad and Sukkur, although the climatic and meteorological conditions, etc., were the same in all talukas.

3. The comparatively few cases reported in villages affected considering the chances of infection, *viz.*, usual rural insanitary conditions, and in some cases canal water and water from stagnant pools, etc.

4. The complete disappearance of epidemic after the first case or two or three cases, *e.g.*, Badeh in Warah taluka, Larkana District.

5. The history of an attack following the eating of over-ripe fruit or stale fish, elicited in a majority of cases and the complete stoppage of all cases when these articles of food were disallowed by either destruction of the articles or their prohibition.

All these peculiarities of this epidemic makes one doubt whether the disease was really cholera. The clinical symptoms given by cholera can be stimulated by diseases coming under the head food infections, *e.g.*, Botulism. Unfortunately no bacteriological examinations were made. It is a well-known fact that in Sind in those talukas which have passed through bad agricultural season the food supply of the poor is supplemented by all kinds of cheap food-stuffs such as meat of old and diseased cattle, over-ripe fruit and dried and decomposed fish and the possibility of severe gastro-intestinal inflamation is always present. In a population on the verge of starvation this affection is likely to be fatal. An epidemiological consideration which favours this view is the comparatively small number of deaths amongst children.

The preventive measures which should be adopted for such epidemics which are not of cholera really are :—

1. Reports should be called for from all Mukhtiarkars as to the agricultural conditions of their talukas for the preceding season and a list of villages where food supply is running short owing to bad agricultural season should be made.

2. A list of villages whose sole drinking water supply is from canal water should also be prepared.

3. Sale of over-ripe fruit, stale decomposed fishes and meat should be prohibited. This is the most difficult problem and would require the co-operation of all Local Bodies, Police, Revenue authorities, etc.

4. Relief measures such as cheap grain shops or advances to poor agriculturists (not Zamindars) for purchase of food to tide over till the next crop is gathered in which it should be taken.

5. A stock of anti-cholera medicines, such as potassium permanganate should be stored in every school and cattle pound, and the fact notified to all villagers, so that prompt treatment and also preventive measures could be undertaken."

I commend these observations for the consideration of Government and would add that sterilization of a water-supply when drawn from a canal, stream, or a large tank has always proved a matter of considerable difficulty and this difficulty can only be overcome by the provision of a "Chloro-boat", by means of which efficient sterilization of such supplies can be undertaken.

45. *Preventive Measures.*—The usual precautionary measures were carried out.

*Inoculation.*—During the year under report 18 Medical Officers were appointed on cholera and plague inoculation duty. The total number of persons inoculated against cholera during the year was 25,003.

*Expenditure on cholera outbreaks.*—During the year under report, a grant of Rs. 15,000 was sanctioned by Government for measures against outbreaks of cholera, *e.g.*, supply of potash permanganate for disinfection of village water-supplies, cholera treatments, and ingredients for Tomb's Mixture. Out of this sum Rs. 7,810 were spent.

In addition to the above, out of the total grant of Rs. 29,000 sanctioned for inoculation against Plague, Cholera and other epidemics, a sum of Rs. 26,458 was expended in connection with cholera and plague inoculation, *i.e.*, pay and travelling allowance of Medical Officers appointed for cholera and plague inoculation duty (Rs. 12,000) and the purchase of anti-cholera and plague vaccine (Rs. 10,000) being the prominent items.

### *Dysentery and Diarrhœa.*

46. This heading shows a decrease on the previous year's figures—23,371 deaths (12,334 males and 11,037 females) against 25,447 in 1927 and 26,282 the mean of the previous five years. The death-rate was 1·22 against 1·33 in 1927 and 1·37 the quinquennial mean. It is possible that a number of deaths of cholera at the beginning and end of mild local epidemics have been returned under this head.

The number of deaths registered under Dysentery and Diarrhœa in previous years is as follows :—

| Year | Deaths | Year | Deaths |
|---|---|---|---|
| 1901-1910 mean.. .. | 52,919 | 1924 .. .. | 28,926 |
| 1911-1915 mean.. .. | 39,455 | 1925 .. .. | 20,643 |
| 1916-1920 mean.. .. | 34,156 | 1926 .. .. | 34,158 |
| 1921 .. .. | 26,799 | 1927 .. .. | 25,447 |
| 1922 .. .. | 21,118 | 1928 .. .. | 23,371 |
| 1923 .. .. | 22,238 | | |

Central Registration District recorded the highest number of deaths—7,730; Western 5,711, Southern 5,369, Gujarat 2,785 and Sind 622 as compared with 9,566 ; 5,554 ; 5,723 ; 2,434 and 718 respectively, in 1927. Bombay City recorded 1,154 deaths equal to a death-rate of 1·00 as against 1,452 and 1·26, respectively in 1927.

The urban death-rate for the Presidency was 1·28 and the rural 1·20 against 1·33 and 1·33 respectively in 1927. The highest death-rates for urban areas were recorded in Bhatkal (7·85), Borsad (3·88), Pandharpur (3·69), Nasirabad (3·68), Erandol (3·53), Bhiwandi (3·36), Gokak (3·30), Surat (3·13), Islampur (3·03), Dakore (3·00), Gokarn (2·65), Nandurbar (2·60), Mehmedabad (2·24), Poona City (2·16), and Jalgaon (2·10).

47. *Dysentery.*—Under the first sub-heading, 3,867 deaths were registered against 3,939, the death-rate being ·20 against ·21 in 1927. The urban death-rate was ·30 and the rural ·18 as compared with ·30 and ·18 respectively in the previous year. The highest death-rates for urban areas were recorded in Bhatkal (4·77) and Borsad (3·63).

48. Under Diarrhœa, 19,504 deaths were recorded against 21,508 in 1927. The death-rate was 1·02 against 1·12 in the previous year. The urban death-rate was ·99 and the rural 1·02 as compared with 1·03 and 1·14 respectively in 1927. Thirteen towns returned death-rates above two per 1,000 of population, *viz.*, Pandharpur (3·53), Bhiwandi (3·36), Gokak (3·30), Nasirabad (3·11), Bhatkal (3·08), Islampur (3·03), Dakore (2·75), Surat (2·66), Nandurbar (2·53), Gokarn (2·53), Erandol (2·32), Poona City (2·06) and Malegaon (2·02). The highest death-rates for rural areas were recorded in Belgaum (2·44), Sholapur (2·28), Ahmednagar (2·02), Bombay Suburban (1·97), Satara (1·82), Kanara (1·68) and Poona (1·63).

Gokak town of the Belgaum District and Bhatkal of the Kánara District returned the highest death-rates from this disease. The drinking water-supply for the greater part of the Gokak town is derived from the river and impurity of this water is the chief cause of high incidence of this disease in the town. The high incidence of this disease in Bhatkal town is probably due to (1) the fact that a large number of deaths from Dysentery are probably returned as Diarrhœa and (2) an epidemic of cholera in Bhatkal petha probably caused a number of deaths from cholera recorded as diarrhœa.

Kanara District showed an improvement in the number of deaths under Dysentery as compared to the preceding year as a result of the early action taken by the Public Health Department in co-operation with the Civil Surgeon of the district. Having noticed during the past two years that outbreaks of bacillary dysentery in below-ghat talukas of the Kanara District to be not an uncommon occurrence in monsoon every year, a note on epidemic dysentery in these talukas was drawn up and preventive measures as those taken last year were recommended, *viz.*, sterilization of water-supplies regularly at least twice a week during the first month and once a week thereafter throughout the towns particularly in the villages and towns where dysenteries were most prevalent during the last year. Action was taken in the matter by the Civil Surgeon by issuing circular orders to all Medical Officers of the district. Much credit in lowering the total number of deaths under Dysentery is due to the keen interest taken by the Civil Surgeon in carrying out the preventive measures suggested by this office.

In Appendix II, a table is given showing the effect on the death-rate by the introduction of a piped water-supply. It will be noticed that the mean death-rate from cholera and dysentery and diarrhœa for the years succeeding installations of water-works ending with the year under report shows, great improvement over that for the quinquennial mean preceding the introduction of a piped supply in practically all the towns.

### *Plague.*

49. There was an increase in mortality from Plague as compared with the previous year. Since 1918 there has been a big drop in the annual mortality. A return in 1923 to the high rate common before the great war was followed by a fall in 1924 and also in the years

following till 1928 with slight variations. During the year under report, 13,563 deaths were registered equal to a death-rate of ·71 as contrasted with 4,076 and a death-rate of ·21 in 1927 and 13,900 and ·72 the quinquennial mean.

The total number of deaths recorded in each year since 1903 is given below :—

| Year | No. of deaths | Year | No. of deaths | Year | No. of deaths |
|---|---|---|---|---|---|
| 1903 .. | 281,269 | 1912 .. | 28,984 | 1921 .. | 4,672 |
| 1904 .. | 223,957 | 1913 .. | 25,288 | 1922 .. | 8,379 |
| 1905 .. | 71,363 | 1914 .. | 20,060 | 1923 .. | 33,741 |
| 1906 .. | 51,525 | 1915 .. | 43,824 | 1924 .. | 9,214 |
| 1907 .. | 93,609 | 1916 .. | 79,507 | 1925 .. | 12,601 |
| 1908 .. | 27,345 | 1917 .. | 162,874 | 1926 .. | 9,866 |
| 1909 .. | 24,316 | 1918 .. | 79,478 | 1927 .. | 4,076 |
| 1910 .. | 25,043 | 1919 .. | 9,626 | 1928 .. | 13,563 |
| 1911 .. | 100,399 | 1920 .. | 13,857 | | |

The distribution of plague given in Annual Form No. XII—shows that the worst affected district was Satara with 8,239 deaths or a ratio of 8·04 per 1,000 of population. Next comes Dharwar with 2,492 deaths equal to a death-rate of 2·40. Other badly affected districts were Nasik, 788 deaths or a death-rate of ·95 ; Surat 588 (·87) ; Belgaum 600 (·63) ; the remaining districts of Thana, Kolaba, Bombay Suburban, Kanara, Bijapur, Ahmednagar, Poona, Sholapur and Ratnagiri were slightly affected, while Gujarat (with the exception of Suart) and Sind escaped entirely. East and West Khandesh were also quite free.

50. By Registration Districts, their history is as follows :—

The heaviest mortality occurred in the Central Registration District, 8,363 deaths being recorded against 782 in 1927, 2,593 in 1926 and 4,449 in 1925. Satara was the worst affected district. Out of 8,363 total deaths, 8,239 were reported from Satara District. In other districts the infection was mild. Out of 78 registration circles, 31 were affected. Out of 5,864 villages, 358 were infected. In Satara District, 339 villages and 4 towns were affected and returned 12,032 attacks and 8,239 deaths equal to a death-rate of 8·04. All rural and town circles were affected except Ashta town. The highest mortality (2,683) occurred in the month of November. The highest death-rates were recorded in the talukas of Khatav (22·75), Satara (19·95), Karad (13·79), Wai (12·31), Man (9·16) and Koregaon (3·50), while for urban areas Karad town was the worst sufferer with 542 deaths equal to a death-rate of 48·16. Satara town recorded a death-rate of 11·76 and Wai 7·64. Plague cases were reported throughout the year. From January few cases were reported from Satara, Karad and Wai towns and from villages in Satara, Koregaon, Wai and Karad talukas ; declining towards June. In July it was on the increase and took an epidemic form from October to December. In Satara taluka, 84 villages were affected and returned 2,668 attacks and 1,782 deaths,

The epidemic was very mild during the first six months of the year. It began to increase in strength from July. The highest number of deaths (566) were recorded in November. A plague case occurred in Satara City in the last week of January. The Municipality commenced rat-trapping in the affected area and the houses in which plague cases occurred were disinfected. Except in May and June, cases were reported throughout the year. There were 285 cases and 264 deaths in Satara town. 7,380 inoculations were done in Satara taluka. With the exception of 12 cases recorded in February, March and April, Khatav taluka was free till the end of June. 50 villages were affected and returned 2,735 attacks and 1,807 deaths. The highest number of deaths (704) were recorded in November. In this month 43 villages returned cases. 4,418 inoculations were done in Khatav taluka. In Karad taluka, 5 villages continued to return cases from last year and 3 villages were infected in January. Plague was on the decline till July but afterwards it spread in the taluka. 58 villages were affected and returned 2,433 attacks and 1,647 deaths. Karad town has had Plague almost every year. In the last week of December 1927 it had its second outbreak and continued to return cases. It was free in June and July. 789 attacks and 542 deaths were recorded. It was reported that the people of Karad were neither evacuating nor getting themselves inoculated. Precautionary measures for disinfection of houses were thought desirable. The Municipality was, therefore, informed that Section 144 (2) (*b*) of the Bombay District Municipal Act of 1901 should be made applicable to the town. The Municipality had accordingly applied to the Commissioner for the powers under the Act. 6,086 inoculations were done in Karad taluka. In Wai taluka, 31 villages were affected and returned 1,061 attacks and 778 deaths. No cases were recorded in April and June. Except for three imported cases in April, May and July, Wai town was free till end of August. 134 attacks and 78 deaths were recorded during the year in Wai Town. 10,998 inoculations were done in Wai Taluka.

In Koregaon taluka, 4 villages continued to return cases from last year. The taluka was free from April to July. 29 villages were affected and returned 356 attacks and 280 deaths. 3,147 persons were inoculated in Koregaon Taluka. In Malcolmpeth peta, 59 attacks and 39 deaths were reported from June to November. December was quite free. 7 villages were affected. As plague cases were occurring at Satara, the President, Panchgani Municipality, was advised on 28th February 1928 to start a vigorous rat-campaign, which was commenced on 3rd March 1928. 506 inoculations were done. Man Taluka was also badly affected—752 attacks and 512 deaths were recorded. The remaining talukas of Khanapur, Jawali, Tasgaon, Patan, Walwa and Shirala were slightly affected. 5,457 persons were inoculated in these talukas. Ahmednagar District was very lightly affected—only 3 villages in Kopargaon taluka were affected and returned 6 attacks and 3 deaths from August to October. Nagar town reported 3 attacks and 2 deaths in September. These were imported from Nasik District. In Poona District, except for an imported case in Dhond peta in December, all the rural circles were free,

The first case in Poona City occurred in February. No cases were reported till September. In all 26 attacks and 15 deaths were recorded. Poona Suburban returned only 2 deaths. In Sholapur District 84 attacks and 57 deaths were recorded in 4 talukas. Sholapur City received infection from H. E. H. The Nizam's Dominions and reported only 3 deaths in November and December. 3 cases were imported in Pandharpur town from Gulbarga in the month of September. All proved fatal. In Ratnagiri District, cases were reported from Vengurla town throughout the year, except in May and June. 46 attacks and 41 deaths were recorded in Vengurla town. One death was reported from one village in Vengurla peta in November.

Medical Officers on Cholera duty were transferred to plague work. The number of inoculations performed in each district were 37,092 in Satara, 1,806 in Ratnangiri, 329 in Ahmednagar and 87 in Poona District.

Next to Central, Southern Registration District was badly affected, 3,288 deaths being recorded against 2,867 in 1927. The death-rate was 1·03 as compared with ·90 in the preceding year and a quinquennial mean of 1·90. The chief area of mortality was Dharwar District which contributed 2,492 or 3/4th of the total number of deaths from the disease in the Division. In Dharwar and Belgaum Districts the epidemic was reported to have continued throughout the year with the highest mortality occurring in the month of October. In Kanara there was a break in May and June. Bijapur District escaped very lightly. Of the 62 registration circles, 39 were affected, while out of 4,738 villages 211 were infected. The urban death-rate (3·18) as a whole was higher than the rural (·75). In Dharwar District 2,492 deaths were recorded against 1,594 in 1927. The death-rate works out to 2·40 as against 1·54 in the preceding year. Among the talukas, Ron, Gadag, Karajgi, Kalghatgi and Ranebennur suffered heavily recording 416, 213, 200, 125 and 186 deaths, respectively. Dharwar, Hubli, Navalgund, Nargund, Mundargi, Bankapur, Kod and Hangal escaped lightly. Among the town circles, Hubli and Gadag-Bettigeri were the worst affected with 789 and 262 deaths respectively. Ranebennur recorded 45 deaths, Dharwar 15 and Navalgund 3 deaths. 61,302 inoculations were done in the Dharwar District. In Belgaum District 600 deaths were recorded against 569 in 1927 and a death-rate of ·63 against ·60 in the previous year. Sampgaon, Belgaum and Khanapur talukas were badly affected recording death-rates of 2·87, 1·89 and 1·18 respectively. Other rural circles of Chikodi, Athani, Gokak and Murgod were quite free. Only Belgaum town reported 30 deaths. Gokak, Athani, Nipani town circles and Belgaum Cantonment were quite free from the disease. 3,625 inoculations were done in Belgaum District. Bijapur District was very lightly affected—only 31 deaths registered against 405 in 1927. Out of 13 registration circles only 5 reported 31 deaths. 1,007 inoculations were done in Bijapur District. Kanara District reported 165 deaths as compared with 299 in 1927. Haliyal and Sirsi recorded the highest death-rates of 2·25 and 1·11 respectively. Karwar, Ankola, Honawar

Siddapur, and Yellapur talukas reported only 26 deaths. Kumta, Bhatkal, Mundgod and Supa rural circles were quite free. Karwar town recorded 34 deaths and Kumta only 2 deaths. Gokarn, Honawar and Bhatkal towns were quite free. 10,751 persons were inoculated in Kanara District. Out of a total of 76,685 inoculations, 7,377 were performed by Special Inoculators, 5,267 by the S. M. S. Officers appointed by the District Local Board, Dharwar, and the remaining by the Medical Officers in charge of Hospitals and Dispensaries and by private medical practitioners.

Next to Southern, Western Registration District was badly affected, resulting in 1,067 deaths against 171 in 1927. Nasik District recorded 788 deaths out of a total of 1,067 deaths in the whole Division. 15 registration circles with 47 villages were affected. Plague prevailed in Nasik District practically in July to December. There were only 3 deaths in January and 2 in March. The maximum mortality (201) was recorded in October. Niphad and Nasik talukas were badly affected, recording death-rates of 4·58 and 2·49 respectively. Nasik town recorded a death-rate of 1·47. In the beginning two cases of plague were reported from Manmad Railway Station. Lasalgaon village in Niphad taluka recorded 115 attacks and 81 deaths. There were practically two outbreaks of plague at Lasalgaon—one from 22nd March to 6th April 1928 and the other from 2nd July to 16th December 1928. The first outbreak subsided within a few days but rats began to die again in July. On the occurrence of a few cases the village was almost evacuated. It was reported that the people were unwilling to submit to inoculations as many of them had already left the village. Most of the people who had left their houses were living in huts in their fields round about the village. Although they had gone out to stay they used to visit their houses or grain godowns off and on. In this way in many cases the infection was carried to the fields. A vigorous rat destruction campaign was advised to carry on to the District Local Board but it was not met with any success owing to the opposition from the Jain community to this measure. A Medical Officer was appointed at Lasalgaon on plague inoculation duty. The village was visited by the Assistant Director of Public Health on 1st October. There were a few people still living in the village. They were advised and persuaded to avail themselves of inoculation but they all were averse to it. During the epidemic, in all 234 persons were inoculated by 3 different Medical Officers and 35 cases were treated by the Special Medical Officer on Plague duty; most of these were in the fields. In Lasalgaon all preventive measures met with good deal of opposition. People were very unwilling to avail themselves of anti-plague inoculation. Owing to the preponderance of Jain element in the population, rat destruction could not be carried out and owing to the self interested grain merchants' visits to the infected village and grain godowns operations could not be stopped during the epidemic. In this way Lasalgaon proved to be a danger zone to many other places during the plague epidemic in Nasik District. The first imported plague case which occurred in Panchwati at Nasik was from Lasalgaon.

Thana District recorded 124 deaths against 18 in the previous year. The disease prevailed from January to December. Only Dahanu and Bhiwandi talukas reported 56 and 13 deaths respectively, while Bhiwandi town was badly affected recording 55 deaths equal to a death-rate of 4·51. At Dahanu infection was likely to be imported from Bulsar where plague was raging in November 1927. And from Dahanu the infection spread to other villages. Bombay Suburban District recorded 24 deaths against 31 in the previous year. Bandra and Kurla towns reported 3 and 1 deaths respectively. In Kolaba District, 3 talukas—Pen, Alibag and Mahad recorded 113, 16 and 1 deaths respectively. 20 villages were infected. East and West Khandesh districts were entirely free.

In Gujarat Registration District, only Surat District was affected. 588 deaths were recorded against 48 in the previous year. 5 Registration circles with 51 villages were infected. Bulsar taluka and town were badly affected recording death-rates of 3·91 and 6·30 respectively. Pardi, Jalalpur and Chikhli recorded 43, 32 and 9 deaths respectively. Plague made its first appearance in Gujarat in July 1927 in Bhadeli Jaga Lala village of Bulsar taluka of Surat District, when infection was most probably imported by a Machhi (a sailor) from Mahuwa where he had ferried his boat. From this place Bulsar town caught infection. During December 1927 plague was prevalent in Bulsar town and 3 other villages of Bulsar taluka. From these places plague spread to 13 other villages of the taluka, 2 villages of Pardi taluka and one village of Jalalpur taluka. 4,786 inoculations were performed in the affected area of the Bulsar, Pardi, Jalalpur and Chikhli talukas of the Surat District.

Sind Province was entirely free from the disease.

In Bombay City 257 deaths were recorded against 207 in 1927. The death-rate was ·22 against ·18 in the preceding year.

*Ratting Operations.*—In Bombay City, a determined rat campaign was carried out. 623,995 rats were caught and destroyed. Out of these 276,478 were examined and 2,222 found to be plague infected. The daily average number of traps used was 529.

51. The total number of persons inoculated during the year under report was 132,340 as compared with 56,171 in the previous year. Out of these 126,262 were performed in British Territory and 6,078 in Native States.

The total number of persons inoculated in each year since 1914 is given below :—

| Year | Number of Inoculations | Year | Number of Inoculations |
|---|---|---|---|
| 1914 .. .. | 62,497 | 1922 .. .. | 73,098 |
| 1915 .. .. | 128,800 | 1923 .. .. | 145,395 |
| 1916 .. .. | 211,907 | 1924 .. .. | 60,327 |
| 1917 .. .. | 241,139 | 1925 .. .. | 60,831 |
| 1918 .. .. | 36,571 | 1926 .. .. | 84,900 |
| 1919 .. .. | 28,307 | 1927 .. .. | 56,171 |
| 1920 .. .. | 49,117 | 1928 .. .. | 132,340 |
| 1921 .. .. | 39,208 | | |

From the information available in this office, 42 cases of plague amongst persons inoculated were reported of which 17 died during the year under report. Out of these 42 cases, 12 were attacked within 10 days of inoculation.

By Districts, the number of operations was 61,302 in Dharwar, 37,992 in Satara, 10,751 in Kanara, 4,786 in Surat, 3,625 in Belgaum, 1,806 in Ratnagiri, 1,007 in Bijapur, 329 in Ahmednagar, 234 in Nasik and 87 in Poona.

In Bombay City, 2,452 inoculations were performed, 3,200 in Savanur State, 2,878 in Aundh State. In Nasik, Bijapur, Karwar, and Aden Prisons, 920, 779, 77 and 115 inoculations were performed respectively.

*Small-pox.*

52. There was a slight rise in mortality from small-pox as compared with the previous year, the total deaths recorded during the year under report being 5,265 (2,592 males and 2,673 females) against 5,091 in the previous year and 5,724 the mean of previous five years. The death-rate was ·27 against ·27 in 1927 and ·30 the quinquennial mean. The incidence of the disease was thus on the normal line.

The annual mortality for previous years is given below :—

| Year | Number of deaths | Year | Number of deaths |
|---|---|---|---|
| 1901-1910 mean.. .. | 4,962 | 1924 .. .. | 11,152 |
| 1911-1920 mean .. | 5,074 | 1925 .. .. | 5,644 |
| 1921 .. .. | 1,771 | 1926 .. .. | 3,922 |
| 1922 .. .. | 1,170 | 1927 .. .. | 5,091 |
| 1923 .. .. | 2,811 | 1928 .. .. | 5,265 |

*Distribution.*—Detailed figures are given in Annual Form No. VIII.

While all the collectorates except Upper Sind Frontier were infected, the following suffered heavily :—Nasik reported 887 deaths or a ratio of (1·07), Ahmednagar 565 (·78), Sholapur 425 (·57), Belgaum 383 (·40), East Khandesh 381 (·35), Dharwar 336 (·32), Satara 308 (·30), Kolaba 228 (·41), Ratnagiri 238 (·21), West Khandesh 218 (·36), and Poona 190 (·19). In Bombay City 595 deaths were registered equal to a ratio of ·52 against 841 and ·75 respectively in 1927.

229 registration circles with 1,347 villages were infected.

The highest urban death-rates were recorded in Malegaon (13·33), Nagar (3·20), Sholapur (2·67), Satara (2·05), Ratnagiri (1·86), Wai (1·85), and Honawar (1·00).

Of the 5,265 deaths from small-pox 1,491 were of infants under 1 year and 2,531 of children between one and ten years of age.

76 per cent. of the mortality occurred during the first six months of the year, March recording the maximum mortality.

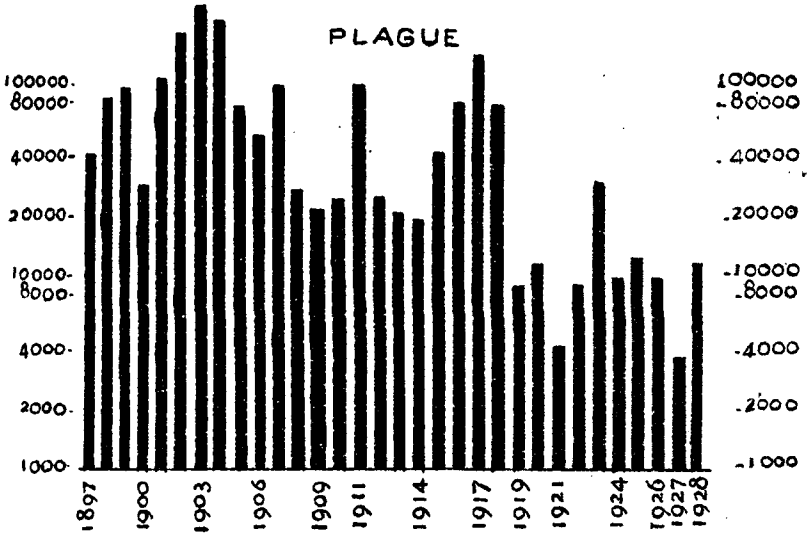
53. The following is a short summary for each Registration District.

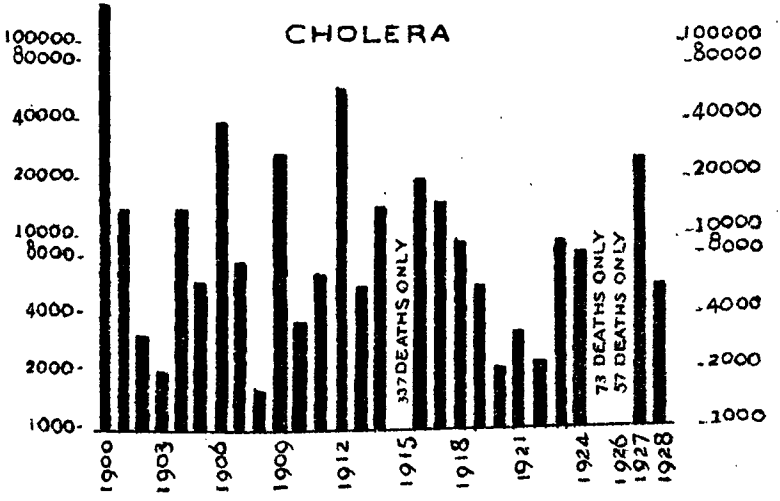
The heaviest incidence occurred in Western Registration District with 1,815 deaths; Central 1,726; Southern 848; while Sind reported 179

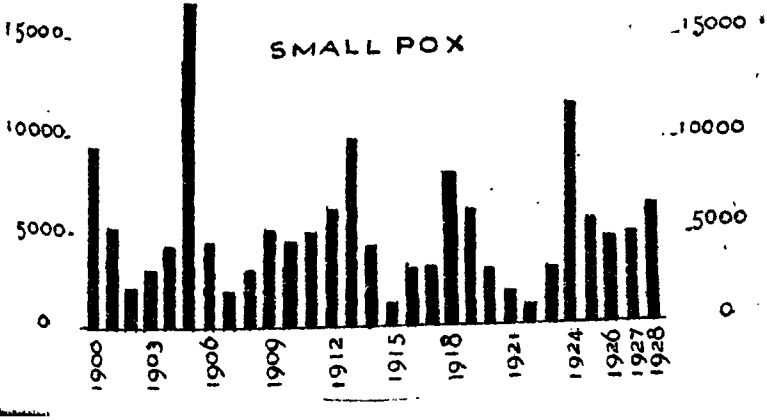
# CHART IV

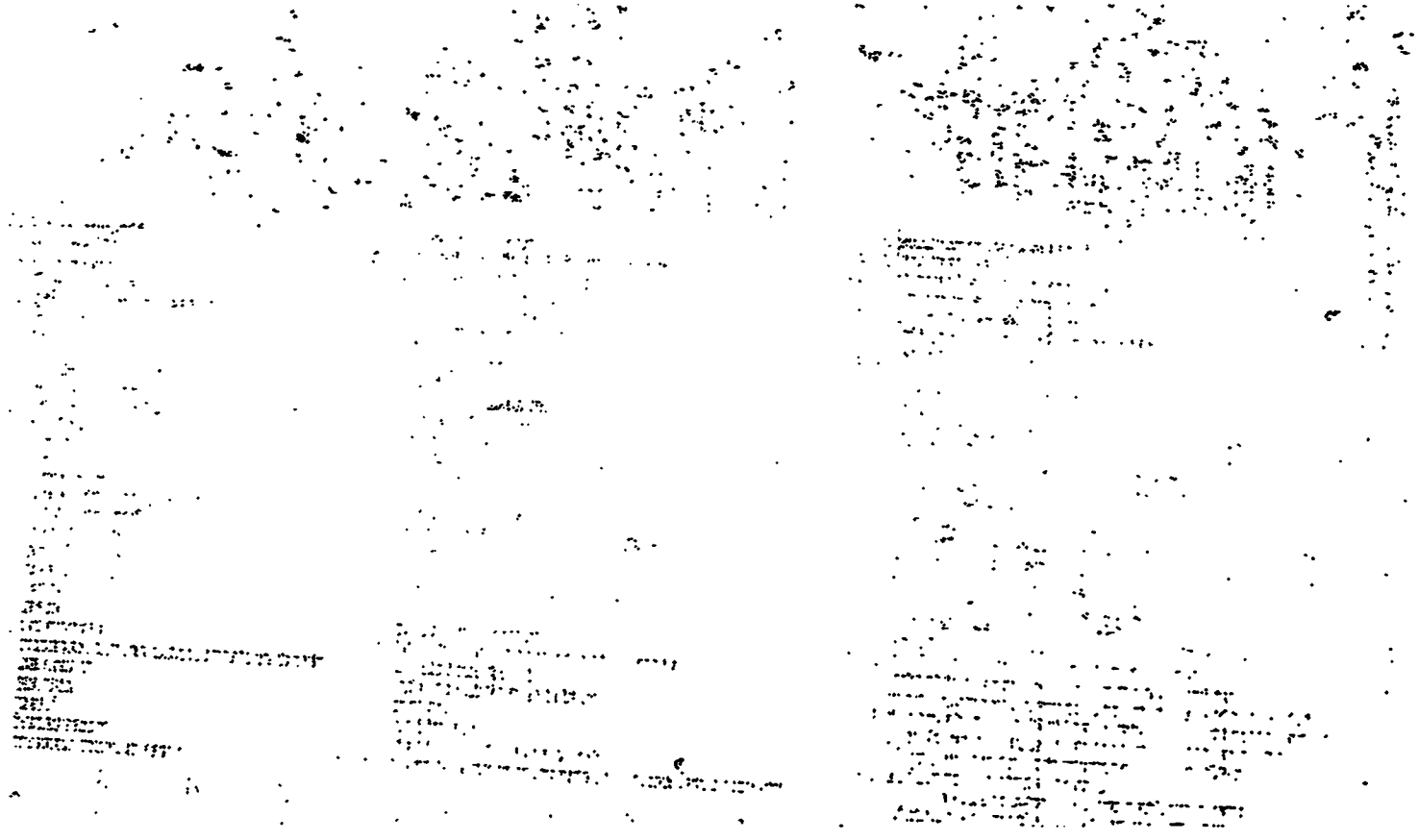
## ANNUAL INCIDENCE OF DEATHS FROM EPIDEMIC DISEASES

SCALE FIGURES REPRESENT ACTUAL DEATHS FOR PLAGUE & CHOLERA. FIGURES ARE AT THEIR LOG: INTERVALS AND ONLY THOSE ABOVE 1000 ARE SHOWN





and Gujarat 102 deaths as compared in that order with 1,336; 1,364; 324; 336 and 890 in 1927.

In the Western Registration District 1,815 deaths were recorded against 1,336 in 1927 and 1,803 the mean of previous five years. 69 registration circles were affected while 494 villages reported deaths. Nasik district was badly affected. Of 1,815 deaths, 636 were under one year and 951 between one and ten years of age. April recorded the highest number of deaths. Vaccination campaigns were carried out in several affected places.

Malegaon town recorded the highest number of deaths 316 equal to a death-rate of 13·33. Vaccination campaign was carried out vigorously.

In the Central Registration District, there were 8,198 attacks and 1,726 deaths from small-pox against 6,361 and 1,364 respectively in 1927. Out of 78 rural circles 72 were affected. Deaths were reported from 486 villages. The highest mortality was recorded in March. Of the 1,726 deaths, 481 were of infants under one year and 853 of children between one and ten years of age. In Ahmednagar district, 187 villages were affected. There were 2,678 attacks and 565 deaths. Ahmednagar town was badly infected—312 attacks and 106 deaths were recorded equal to a death-rate of 3·20. Compulsory Vaccination Act was made applicable from 25th October 1928 to the Nagar Municipal area. In Poona District, 60 villages were infected. There were 1,047 attacks and 190 deaths. Poona City reported 41 deaths. In Sholapur District, 77 villages were affected and returned 1,614 attacks and 425 deaths. Out of 1,614 attacks and 425 deaths, Sholapur City alone reported 796 attacks and 319 deaths during the year. 4 villages in Barsi taluka received infection from H. E. H. The Nizam's Territory and one village in Malsiras taluka received infection from Satara District. In Satara District, 147 villages returned cases. There were 1,192 attacks and 308 deaths. 4 villages received infection from Bombay. One from Jamkhandi, 3 from Aundh, 2 from Sangli, 2 from Bhor, and one from Miraj States. 113 villages were affected and returned 1,658 cases and 238 deaths in Ratnagiri District. Ratnagiri town reported 246 attacks and 29 deaths from January to March and June. 21 villages got infection from Bombay.

In the Southern Registration District, the disease was on the increase during the year recording 848 deaths from small-pox against 324 in the preceding year. Among these 848 deaths, 188 were among infants under one year and 336 were recorded between one and ten years of age. 44 registration circles were affected, while 291 villages reported deaths. In Belgaum District all rural circles except Chandgad and Belgaum town were affected. In Dharwar District all rural and town circles except Gadag-Bettigeri and 113 out of a total number of 1,277 villages were affected. Karajgi and Dharwar rural circles were the worst affected with the recorded mortality rates of ·99 and ·97 respectively. Bijapur District escaped very lightly recording 47 deaths only of which 25 were reported from Badami taluka. All town circles except Bijapur were

quite free. Bijapur town recorded one death only. Kanara district recorded 82 deaths of which Sirsi taluka returned the highest mortality of 44. Honawar town reported 7 deaths only.

In Gujarat Registration District, 102 deaths from small-pox were registered against 890 in 1927. In Surat District 8 out of 12 registration circles were affected and reported 35 deaths. Surat City reported only 3 deaths against 504 in 1927. In Broach District 4 rural circles were affected and reported 18 deaths against 44 in 1927. All the town circles were free from the disease. Infection in Kaira District resulted in only 1 death reported from Moholel village of Nadiad taluka. In Panch Mahals District 6 deaths were reported from 4 rural circles. Ahmedabad district recorded 37 deaths against 26 in 1927. Ahmedabad and Viramgaon town circles reported 7 and 1 deaths against 5 and 1 respectively in 1927.

In Sind, 1,028 cases with 179 deaths were registered against 1,749 and 336 respectively in 1927. Nawabshah District was badly affected as last year with 82 deaths as compared with 99 in 1927. Of 179 deaths from small-pox, 35 were among infants under one year, 78 between one and 10 years and the remaining 66 above 10 years. Of 5,134 towns and villages, 36 were affected.

In Sind, the Officers of this Department enquired into the vaccinal state of 966 cases of small-pox with the following results :—

Out of 131 cases which occurred in the population below one year of age, 10 were among vaccinated and 121 among unvaccinated, and in the population over one year and below 14 years of age, out of 694, 126 were among vaccinated and 568 among unvaccinated persons. In the population over 14 years of age out of 141, 81 were among vaccinated and 60 among unvaccinated. Out of the total 217 cases among vaccinated only 19 died whereas among the unvaccinated out of 749, 149 died ; the percentage of deaths among vaccinated and unvaccinated being 9 per cent. and 20 per cent. respectively.

54. In accordance with Government Resolution, General Department, No. P-61 dated the 29th January 1926, the following short summary of small-pox cases treated at the various hospitals in the Presidency is given.

During the year under report in all 70 cases of small-pox were treated at the Civil Hospitals and Epidemic Diseases Hospitals in the Presidency as against 89 in the previous year. Of the cases treated, 28 had been vaccinated as against 64 in the previous year while 3 as against 1 in the previous year were stated to have been successfully vaccinated but no vaccination cicatrix could be seen. 39 cases were unvaccinated as for 23 in the previous year. 5 cases were treated at the Epidemic Diseases Hospital, Karachi. Of the cases treated 4 were vaccinated and one was unvaccinated. Among the 4 vaccinated one had two marks on left arm, one had three marks on left arm and the remaining two had 2 marks on each arm.

*Injuries.*

55. There were 7,959 deaths recorded from Injuries of which 4,522 were among males and 3,437 among females. The number registered in 1927 was 7,873 while the quinquennial mean was 7,637.

The annual mortality for previous years is as follows :—

| Year | Number of deaths | Year | Number of deaths |
|---|---|---|---|
| 1901-1910 mean.. .. | 6,879 | 1924 .. .. | 7,374 |
| 1911-1920 mean.. .. | 7,725 | 1925 .. .. | 7,754 |
| 1921 .. .. | 7,888 | 1926 .. .. | 7,672 |
| 1922 .. .. | 7,810 | 1927 .. .. | 7,873 |
| 1923 .. .. | 7,514 | 1928 .. .. | 7,959 |

From the above table it will be seen that this definite cause of death which is free from most errors of registration, varies but little from year to year.

Further comparisons arranged under the various heads are set forth in the following table :—

| | 1928 | | | 1927 | | |
|---|---|---|---|---|---|---|
| | Male | Female | Total | Male | Female | Total |
| Drowning .. .. | 1,197 | 1,718 | 2,915 | 1,184 | 1,583 | 2,767 |
| Poisoning .. .. | 137 | 45 | 182 | 118 | 42 | 160 |
| Hanging .. .. | 174 | 66 | 240 | 190 | 70 | 260 |
| Wounding .. .. | 1,292 | 556 | 1,848 | 1,224 | 568 | 1,792 |
| Wild Beasts .. .. | 33 | 9 | 42 | 43 | 12 | 55 |
| Snake-bite .. .. | 933 | 514 | 1,447 | 957 | 544 | 1,501 |
| Rabies .. .. | 122 | 74 | 196 | 119 | 68 | 187 |
| Railway Accidents .. | 92 | 16 | 108 | 85 | 14 | 99 |
| Other Causes .. .. | 542 | 439 | 981 | 597 | 455 | 1,052 |
| Total .. | 4,522 | 3,437 | 7,959 | 4,517 | 3,356 | 7,873 |

Increases in deaths by drowning and wounding are the noticeable features in contrast with the previous year.

*Snake-bite deaths.*—1,447 deaths were attributed to snake-bite against 1,501 in 1927. The highest number occurred in Ratnagiri District, *viz.*, 214. Next in order were Thana 128, Ahmedabad 107, Satara 104, Thar and Parkar 72, Kolaba 67, Kaira 63 and Hyderabad 59. Ratnagiri, Thana, Satara and Ahmedabad also headed the list last year. In the Southern Registration District, 136 deaths from snake-bite were reported during the year under report. 86 of these were males and 50 females. 111 deaths were enquired into. In 35 cases the snake was identified as cobra and in these the interval between bite and death of the victim varied from 30 minutes to 15 hours. In Gujarat Registration District,

292 deaths from snake-bite were reported against 267 in 1927. Of these, 132 deaths were caused by " black serpents ", 23 by " Cobras " while 119 were caused by others, the species being not known. The period during which the victim was alive after the bite varied from a few minutes to 4 days in the case of " black serpents " and from a few minutes to 12 hours in the case of " Cobras ".

*Rabies.*—196 deaths were reported under this heading against 187 in the previous year. Satara District recorded the highest number—21, Nasik 20, Kaira 18, Ahmedabad 17, Sholapur 15 ; Sholapur town reported 6 deaths and Ahmedabad City 4 deaths.

In the Southern Registration District, there were 111 deaths recorded from murders in the total number of 1,522 deaths from Injuries. Belgaum District recorded 52, Dharwar 25, Bijapur 26 and Kanara 8.

Suicidal deaths show a decrease—580 (368 males and 212 females) against 626 (391 males and 235 females) in the previous year. Details for the districts are as follows :—

| District | Drowning | Poisoning | Hanging | Wounding | Railway | Total |
|---|---|---|---|---|---|---|
| Bombay City .. .. | 11 | 59 | 6 | 11 | 2 | 89 |
| Belgaum .. .. | 23 | 1 | 38 | 1 | .. | 63 |
| Dharwar .. .. | 11 | 3 | 43 | 1 | 1 | 59 |
| Bijapur .. .. | 5 | 1 | 34 | .. | .. | 40 |
| Satara .. .. | 14 | 8 | 11 | 6 | .. | 39 |
| Sholapur .. .. | 3 | 13 | 15 | .. | .. | 31 |

*Other Causes.*

56. Under this heading a number of deaths are recorded which cannot be included under the tabulated headings such as for instance debility, old age, rheumatism, also deaths which are common but the causes of which are not understood by the village registrar.

It covers ordinarily about one-fourth of the total deaths and its numerical importance in the mortality tables, therefore, comes second to " Fevers ". It is subject to less fluctuation than other headings. For these reasons it presents a reliable index to the general health of the community.

162,062 deaths (81,823 males and 80,239 females) were registered as compared with 149,745 (75,883 males and 73,872 females) in 1927 and a quinquennial mean of 151,006. The death-rate was 8·46 against 7·81 in 1927 and a quinquennial mean of 7·88.

The annual mortality for previous years is as follows :—

| Year | Number of deaths | Ratio per mille |
|---|---|---|
| 1901-1910 mean .. .. .. .. | 140,618 | 7·61 |
| 1911-1915 mean .. .. .. .. | 144,911 | 7·40 |
| 1916-1920 mean .. .. .. .. | 164,773 | 8·41 |
| 1921 .. .. .. .. | 134,263 | 7·01 |
| 1922 .. .. .. .. | 130,766 | 6·82 |
| 1923 .. .. .. .. | 140,154 | 7·31 |
| 1924 .. .. .. .. | 159,008 | 8·30 |
| 1925 .. .. .. .. | 140,053 | 7·31 |
| 1926 .. .. .. .. | 166,069 | 8·67 |
| 1927 .. .. .. .. | 149,745 | 7·81 |
| 1928 .. .. .. .. | 162,062 | 8·46 |

57. *Deaths during child-birth.*—One of the sub-heads of "Other Causes" shows an increase from 3,814 to 4,265. For the Western, Central, Southern, Gujarat and Sind Registration Districts, the total deaths were 846 ; 1,036 ; 855 ; 547 and 833 as compared with 676 ; 821 ; 807 ; 518 and 886 respectively in the previous year. In Bombay City 128 deaths were recorded during the year against 106 in 1927. The increase was shared by all the Registration Districts except Sind, Western and Central being the highest as compared with the preceding year.

Taking the Presidency as a whole, one woman was reported to have died as the result of child bearing to every 172 live births as compared with one per 185 in 1927. The urban and rural figures were one per 97 and 201 respectively as compared with 115 and 207 in the preceding year.

Among Collectorates, the toll of life exacted by child-birth still continues to be the highest in Kanara where one mother died for every 42 births registered as compared with 49 in the previous year. The maternal mortality rates for other Collectorates of the Southern Registration District, were Dharwar 1 to 153, Belgaum 1 to 237 and Bijapur 1 to 289 as against 156,222 and 435 respectively in 1927. Elsewhere the following districts show high rates. Thana 1 to 128, Nasik 1 to 133 and Ratnagiri 1 to 138 births. The Sind rates are still higher, *e. g.*, Hyderabad 1 to 80 births, Sukkur 1 to 81, Larkana 1 to 83, Thar and Parkar 1 to 90, Karachi 1 to 105, Nawabshah 1 to 118 and Upper Sind Frontier 1 to 286 births. Sind towns, although there is some improvement in the maternal mortality, still show extreme rates as compared to the Presidency proper, for example, Larkana one maternal death in every 30 births, Shikarpur one in every 35, Sukkur one in every 40, Hyderabad one in every 64 and Karachi one in every 119 births.

In Bombay City, one mother died for every 184 births. Amongst towns, in the Presidency proper, the highest rates were reported from Dholka one to 15 births, Satara one to 32, Broach one to 37, Pandharpur 1 to 43, Kurla 1 to 45, Nasik 1 to 57, Poona City 1 to 63, Nadiad 1 to 65, Ahmedabad 1 to 66, Dharwar 1 to 77, Surat 1 to 79, Nagar 1 to 85 and Sholapur 1 to 97.

It is interesting to note that Shikarpur town shows an improvement in the maternal mortality. This is due to the fact that child and maternal welfare movement has taken hold in Shikarpur town owing to efforts of Women Health Education Society and Ishwarbai Sitaldas Tirathdas Maternity Home at Shikarpur. The child welfare and maternity movement has continued to progress in Sind, owing to the efforts of the Mrs. Hamid Ali Red Cross Maternity Home in Larkana, the Women's Health Education Society and the Ishawarbai Sitaldas Tirathdas Maternity Home at Shikarpur and Miss Piggot's activities in other parts of Sind. During the year Miss Piggot visited 31 new towns and villages. 7,088 women attended her lectures. The popularity of the Maternity Homes has steadily increased in every part and excellent work is being turned out in spite of many difficulties.

In Hyderabad town, there has been an increase in maternal deaths and the Health Officer, Hyderabad Municipality, and Miss R. Piggot are being asked to look into the matter with a view to future action. In Sukkur town, there is also an increase in maternal deaths as compared with last year.

58. The number of deaths from Chief Causes for each Collectorate, by months, are shown in Annual Forms Nos. VII to XII.

## SECTION VII

VACCINATION.

59. *Selected Districts.*—The system introduced in the year 1910 by which the control of vaccination in one district of each Registration Circle is exercised by the Local Board of that district was continued throughout the year.

60. *Changes in Administration.*—No changes occurred during the year. In Muscat town only 4 persons were vaccinated during the year.

61. *Changes in the strength of the establishment.*—The vaccinator of Shirpur continued to act as Registration Karkun in addition to his own duties throughout the year.

No change in the strength of the vaccination establishment took place during the year.

*Primary Vaccination* (Appendix IV, Statement I).

62. During the year 1928-29, 652,893 persons were primarily vaccinated against 651,034 in the previous year. There is an increase of 1,859 over last year's figures. There is a decrease in the Western and Central Registration Districts, while there is an increase in Gujarat and Sind Registration Districts. The decrease in the Southern Registration District is only 135.

The following table shows the number of children under one year available for vaccination calculated (1) on the number of births registered less deaths under one year; and (2) on probable number of births at 31 per 1,000 of population less deaths—and the percentages successfully vaccinated :—

| District | Population | Number of births during the year | Deaths under one year | Births *minus* deaths |
|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 |
| Western Registration District | 4,027,344 | 184,310 | 34,037 | 150,273 |
| Central " " .. | 4,702,505 | 200,982 | 36,198 | 164,784 |
| Southern " " .. | 3,183,777 | 124,553 | 19,713 | 104,840 |
| Gujarat " " .. | 2,958,849 | 116,102 | 23,064 | 93,038 |
| Sind " " .. | 3,279,377 | 80,322 | 11,555 | 68,767 |
| Total .. | 18,151,852 | 706,269 | 124,567 | 581,702 |

| District | Births at the rate of 31 per 1,000 of population | Number of children under 1 year successfully vaccinated | Percentage of available children (column 5) successfully vaccinated | Percentage of available children 31 per 1,000 of population (column 6) *minus* deaths successfully vaccinated |
|---|---|---|---|---|
| 1 | 6 | 7 | 8 | 9 |
| Western Registration District | 124,848 | 87,600 | 58·29 | 96·46 |
| Central " " .. | 145,778 | 102,807 | 62·39 | 93·82 |
| Southern " " .. | 98,697 | 67,567 | 64·45 | 89·69 |
| Gujarat " " .. | 91,724 | 64,886 | 69·74 | 94·50 |
| Sind " " .. | 101,661 | 57,710 | 83·92 | 61·24 |
| Total .. | 562,708 | 380,570 | 65·42 | 86·86 |

For the Presidency as a whole the percentages were (1) 65·42 and (2) 86·86.

63. *Results.*—Out of 652,933 primary vaccinations performed 575, 910 or 88·20 per cent. were successful and 1,701 or 0·26 per cent. unsuccessful. In the remaining 11·54 per cent. of cases the results could not be ascertained.

Forty persons were vaccinated a second time owing to failure of the first operation.

64. *Age and Sex.*—Of the primary vaccinations 430,429 or 66 per cent. were infants under one year of age, and 138,456 or 21 per cent. of children between the ages of one and six years. By sex, 337,052 were males and 315,841 females, equal to a proportion of 106·71 to 100. The proportion of male to female children born during the year was 108·15 to 100.

*Re-vaccination* (Appendix IV, Statement I).

65. During the year 144,270 persons were re-vaccinated against 115,246 in the previous year showing an increase of 29,024. The percentage of successful re-vaccinations was 17·66. Results could not be ascertained in 58·16 per cent. of cases.

An increase of re-vaccinations over last year's figures is observed in the Western and Southern Registration Districts. Last year a circular was issued to all the officers of the Department inviting their attention to the remarks of the Public Health Commissioner with the Government of India regarding the importance of re-vaccination and they were directed to devote special attention to the subject and to instruct their Inspectors and vaccinators in the importance of pushing on re-vaccination propaganda. This circular is, to some extent, responsible for the rise in the number of re-vaccinations in the Southern Registration District.

66. *Vaccination of pilgrims at Karachi.*—A temporary vaccination establishment consisting of one male vaccinator and one female vaccinator and one clerk and one coolie was entertained in Karachi town for the vaccination of pilgrims proceeding to Hedjaz. 8,172 pilgrims were vaccinated during the months of April and May 1928 and January, February and March 1929, of whom 6,518 were males and 1,654 females. By age periods, 37 were under one year, 85 between one and ten years and 8,050 above ten years. The total expenditure incurred on vaccination of these pilgrims amounted to Rs. 802-13-8 and was defrayed by Government. In the preceding year 15,005 pilgrims were re-vaccinated, at a total expenditure of Rs. 941-10-7.

*Vaccination in Indian States* (Appendix V, Statement I).

67. In the Indian States 83,111 persons were primarily vaccinated against 82,413 in 1927-28. The number of successful cases was 82,082 or 98·76 per cent. The percentage of success excluding unknown was 99·93.

Re-vaccinations numbered 5,189 against 3,729 in the previous year. The success rate excluding 575 unknown results was 62·03.

68. *Total Operations.*—During the year the total number of primary vaccinations performed amounted to 736,004 and of re-vaccinations to 149,459 against 733,447 and 118,972 in 1927-28.

69. *Incidence of Small-pox.*—The following table shows the incidence of small-pox by three age periods in the different Registration Districts :—

| Districts | Age | | | | Percentage of deaths | | |
|---|---|---|---|---|---|---|---|
| | Total deaths | Under one year | Under ten years | Above ten years | Under one year | Under ten years | Above ten years |
| Western Registration District .. | 2,479 | 857 | 1,323 | 299 | 34·57 | 53·37 | 12·06 |
| Central ,, ,, .. | 1,423 | 457 | 710 | 256 | 32·12 | 49·89 | 17·99 |
| Southern ,, ,, .. | 930 | 240 | 362 | 328 | 25·81 | 38·92 | 35·27 |
| Gujarat ,, ,, .. | 191 | 32 | 107 | 52 | 16·75 | 56·02 | 27·23 |
| Sind ,, ,, .. | 179 | 35 | 78 | 66 | 19·55 | 43·58 | 36·87 |
| Total .. | 5,202 | 1,621 | 2,580 | 1,001 | 31·16 | 49·60 | 19·24 |

In all, there were 5,202 deaths, which compare satisfactorily with the quinquennial mean (calendar years) of 5,724. The incidence was heaviest in the East Khandesh, West Khandesh, Nasik, Kolaba, Ahmednagar, Sholapur, Belgaum and Dharwar Districts.

70. *Vaccination Campaigns.*—With the object of reducing the number of unprotected school children to a minimum the usual monsoon campaign was conducted by Inspectors of Vaccination in municipal towns and Taluka Head-quarters.

Vaccination in Police Lines and out-posts is being carried out regularly. Special visits are paid by the vaccinators every month for that purpose.

The vaccinators in charge of big fair centres were directed to push on primary and re-vaccinations well in advance of the fairs.

71. *Lymph.*—The lymph prepared at Vaccine Institute was the only one used throughout the Presidency.

The following table gives the results of all vaccinations performed excluding cases in which the result could not be ascertained :—

| Circles | Number of operations | | Successful | | Percentage of success excluding unknown | |
|---|---|---|---|---|---|---|
| | Primary vaccination | Re-vaccination | Primary | Re-vaccination | Primary | Re-vaccination |
| Western Registration District .. | 139,364 | 8,215 | 112,110 | 3,586 | 99·76 | 62·17 |
| Bombay City .. | 22,584 | 47,416 | 20,533 | 15 | 99·00 | 100·00 |
| Central Registration District .. | 143,232 | 9,010 | 131,264 | 2,819 | 99·97 | 57·17 |
| Southern ,, ,, .. | 102,674 | 50,164 | 98,857 | 13,401 | 99·92 | 39·71 |
| Gujarat ,, ,, .. | 125,708 | 6,185 | 114,362 | 2,955 | 99·89 | 57·43 |
| Sind ,, ,, .. | 105,250 | 23,381 | 97,984 | 2,519 | 99·85 | 36·59 |

*Cost of Vaccination* (Appendix IV, Statement II).

72. The cost of vaccination came to Rs. 663,821 against Rs. 646,283. The increase in the expenditure is due to the increased rate of pay to the Assistant Director of Public Health, Western Registration District, and increments in pay of vaccinators and Inspectors. The average cost of each successful case of vaccination was Rs. 0-15-8 against Rs. 1-1-9 in the previous year.

73. *Vaccine Institute, Belgaum.*—The Vaccine Institute had a successful year's work, 65,661 c. c. of lymph being manufactured and 1,258,670 doses issued as compared with 1,294,200 during the previous year. Besides the vaccinators of the Presidency, lymph was supplied to Baroda, Kotah and Jhalwar, Kathiawar, Palanpur and Mahi Kantha Agencies and Idar State. Civil and Military Medical Officers were also supplied with lymph.

Of the 1,258,670 doses issued 941,185 were reported to have been used. 202,385 doses were issued to Indian States, 76,635 to Civil Medical Officers and 19,765 to Military Medical Officers, the success rate for all primary operations being 99·85 and for re-vaccinations 47·52. The case succes rate (99·71) in the Indian States is little less than that (99·85) in the presidency districts. At the close of the year there was a balance of 25,560 c. cs. of lymph.

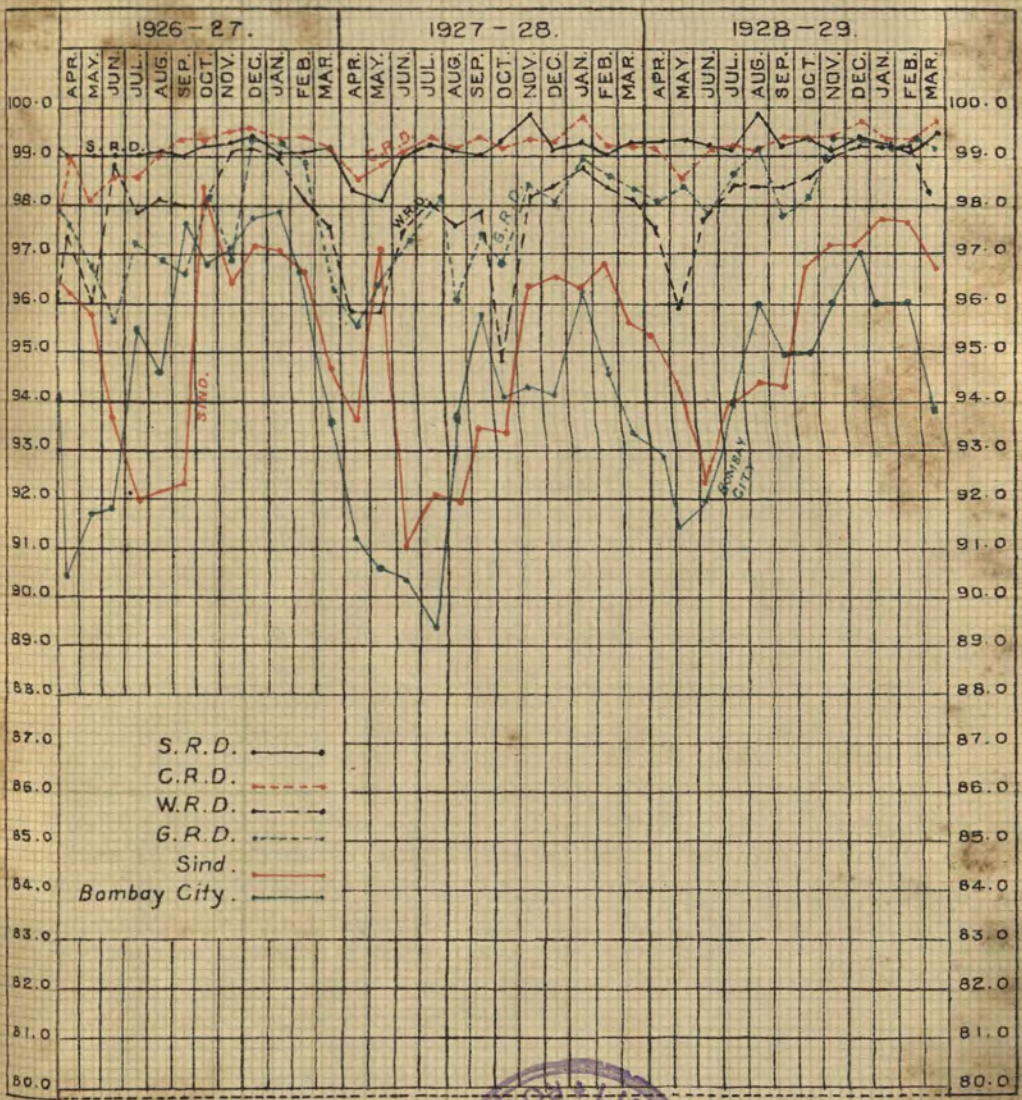
Seven buffalo calves and 4 donkeys were used for experimental work, with a view to see whether they would produce better results in preference to calf-to-rabbit method. The experiments have, however, showed so far that the use of buffalo calves was not quite encouraging, having no particular advantage and that of the donkeys was unsatisfactory, inasmuch as the reaction on the donkeys was premature and imperfect, yielding extremely poor and dried vesicles amounting to hardly few grammes in weight. As this experiment was done in hot weather this result is not conclusive and will be tried again in the winter. Rabbits were used for passages and they served their purpose well to keep seed lymph of standard quality and potency as usual.

Seed lymph was obtained from Travancore and was utilized on four calves.

*Wastage.*—The percentage of doses wasted in Sind Registration District was high as compared with other Registration Districts.

*Calves.*—There were no animals in stock at the commencement of the year. 985 cow calves and 7 buffalo calves and 1 donkey were hired as compared with 900 calves during the previous year. Three donkeys were purchased and sold after vaccination. At the end of the year only 96 calves remained in stock. The others including the donkey were returned to the contractor. Of the 927 calves vaccinated 20 proved unsuccessful and the lymph from 16 was rejected as unfit for use. Though the donkeys were vaccinated the lymph obtained from them was not used for issue.

# INSERTION SUCCESS RATES OF PRIMARY VACCINATIONS WITH GLYCERINATED LYMPH IN THE SEVERAL REGISTRATION DISTRICTS OF THE PRESIDENCY & BOMBAY CITY FOR THE YEARS 1926-27, 27-28 & 28-29.




LIBRARY OF THE BOMBAY BRANCH OF THE ROYAL ASIATIC SOCIETY

No case of cattle disease occurred among the calves. The practice of testing every lymph on children, before issue from the Institute, was continued, 1,599 children being vaccinated in this way.

*Repairs.*—No new buildings were constructed. Current repairs were carried out as usual by the Public Works Department. Some minor additions were made, *viz.*, wire webbing to the windows of the record-room and providing expanded metal to the windows of the Head clerk's room. Additional electric road lights were put up in front of the menial quarters. The well No. 3 is almost complete except for the final fittings of water-pump.

The work of constructing the new rabbit-house has not yet been taken in hand for want of funds.

The following projects are still under consideration :—

1. Additional quarters for the staff.
2. A new school house.
3. Lecture Hall.
4. Hostel for vaccinators and others attending special Training class held at the Institute.

*Refrigerating Plant and Machinery.*—As the temperature of the cold room showed an undesirable height of 30° F. this was brought to the notice of the Executive Electrical Engineer, who has pointed out that the required low temperature was not possible to be attained in the present cold room as the insulating material was saturated with under-ground water. He had suggested that the present underground room may be changed to the ground level. It has been pointed out to him that the desired temperature should be about 14° to 4° F. as it is observed at almost all the Vaccine Institutions in the West and he has been asked to consider the question thoroughly and prepare the plans and estimates for the cold room that will maintain the desired temperature.

*Drainage.*—The drainage system continued to work satisfactorily. The effluent from the septic tank was utilized as usual for irrigating crops of lucerne and banana trees on a portion of the sewage farm. During the rains the remaining portion of the farm was used for crops of Bajari and Jawari which served as fodder for the calves.

*Water-supply.*—During the hot weather the water-supply had to be curtailed with some inconvenience to the staff. The water shortage will, it is hoped, cease when the third well will be taken in use.

The results of primary vaccinations performed by the vaccinators were carefully scrutinized by the Director of the Institute. A chart showing the results of monthly primary vaccinations for the three years in the five Registration Districts and in Bombay City is attached.

*Expenditure.*—The expenditure for the year amounted to Rs. 69,916-4-1 including the expenditure on cold store and excluding annual repairs to buildings, interest on capital outlay and pension and leave contribution, against Rs. 73,989-13-4 during last year. There was thus a decrease in expenditure of Rs. 4,073-9-3 which is partly due to the fall in the prices of food in the market and partly to less articles purchased for the

use of the Laboratory than last year. The receipts including sale of lymph and contributions came to Rs. 73,602-12-0 showing a profit of Rs. 3,686-7-11. If interest on capital outlay, etc., are included in the expenditure there was a deficit of Rs. 20,161-14-8. The net expenditure after deducting sale proceeds of lymph to non-contributing bodies was Rs. 46,681-0-1 against Rs. 45,275-0-3 in the previous year. The cost of lymph per dose manufactured was 13·67 pies and the cost per dose despatched 14·26 pies.

74. *Compulsory Vaccination.*—Excluding Bombay City, Aden and the five Cantonments of Ahmedabad, Ahmednagar, Hyderabad, Belgaum and Deolali, the Vaccination Act is in force in only 11 municipal towns of this Presidency. The figures for other Provinces are approximately as under :—

| | Towns. |
|---|---|
| Bengal Presidency .. .. .. | 110 |
| Assam .. .. .. .. | 23 |
| Punjab .. .. .. .. | 106 |
| Central Provinces .. .. .. | 72 |
| Burma .. .. .. .. | 63 |
| Bihar and Orissa .. .. .. | 58 |
| United Provinces .. .. .. | 85 |
| North West Frontier Province .. .. | 9 |
| Madras Presidency .. .. .. | 81 |
| Coorg .. .. .. .. | 2 |

Two hundred and twenty-one prosecutions were instituted under the Act during the year mostly in Karachi City (154) and Hyderabad (35). Fines were inflicted in 38 cases and 18 cases were pending at the end of the year.

Of the 16,473 children born during the year in the five towns of Sind to which the Act applies—Karachi, Hyderabad, Sukkur, Larkana and Rohri—only 8,149 or 49 per cent. were vaccinated. 2,868 or 17 per cent. died and 45 contracted small-pox before they were due for vaccination. 3,499 left the city, 471 were excused on account of illness and 1,441 remained unvaccinated.

Hyderabad is still backward in vaccination. The percentage of children under one year successfully vaccinated in Karachi town was 73·93 and in Hyderabad town 30·29. Hyderabad shows a little improvement this year.

Except in Ahmedabad and Karachi Cities, the bye-laws regarding registration of births and deaths are not properly enforced with the result that many births escape registration and the number of children procurable for vaccination is in consequence smaller than it should be. Such children provide a potential source of danger to the community and it is for Local Bodies to realize this and to see to it that all births which occur in their areas are registered and the children vaccinated.

The following table shows the progress made in the protection of infants during the year under report and the number of deaths from

smallpox during five years in these towns in which the Act has been in force together with date of extension of Vaccination Act to the town :—

| Name | Population | Number of births during the year | Children available for vaccination | | Number of children under one year successfully vaccinated |
|---|---|---|---|---|---|
| | | | Births *minus* deaths of children under one year | At the rate of 31 per 1,000 of population | |
| Bombay City .. .. | 1,175,914 | 23,623 | 16,196 | 36,453 | 14,422 |
| Bandra .. .. | 37,411 | 738 | 629 | 907 | 856 |
| Kurla .. .. | 26,059 | 594 | 462 | 807 | 449 |
| Dhulia .. .. | 30,605 | 1,254 | 984 | 948 | 945 |
| Bhusawal .. .. | 10,860 | 739 | 593 | 337 | 277 |
| Deolali Cantonment .. | 18,789 | 23 | .... | 582 | 46 |
| Ahmedabad .. .. | 270,775 | 11,473 | 7,635 | 8,394 | 7,707 |
| Ahmedabad Cantonment .. | 3,232 | 25 | 20 | 100 | .... |
| Karachi .. .. | 216,883 | 10,084 | 8,921 | 6,961 | 5,146 |
| Hyderabad .. .. | 73,951 | 3,023 | 2,446 | 2,512 | 761 |
| Hyderabad Cantonment .. | 3,760 | 22 | 12 | 116 | 32 |
| Sukkur .. .. | 42,759 | 1,295 | 1,081 | 1,340 | 753 |
| Rohri .. .. | 11,378 | 391 | 300 | 308 | 185 |
| Larkana .. .. .. | 17,723 | 725 | 567 | 572 | 42 |
| Ahmednagar Cantonment .. | 10,997 | 256 | 202 | 340 | 83 |
| Ahmednagar City .. .. | 33,138 | 1,113 | 953 | 1,027 | 606 |
| Belgaum Cantonment .. | 6,899 | 71 | 63 | 213 | 128 |
| Aden .. .. .. | 56,500 | 595 | .... | 1,751 | 212 |

| Name | Number of deaths from small-pox | | | | | Date of extension of Vaccination Act to Town |
|---|---|---|---|---|---|---|
| | 1924-25 | 1925-26 | 1926-27 | 1927-28 | 1928-29 | |
| Bombay City .. .. | 1,096 | 413 | 651 | 723 | 595 | September 1877. |
| Bandra .. .. | 19 | 8 | 7 | 5 | 8 | August 1900. |
| Kurla .. .. | 10 | 3 | 12 | 2 | 3 | Do. |
| Dhulia .. .. | 6 | 3 | 3 | .. | 1 | 15th June 1925. |
| Bhusawal .. .. | 7 | 1 | 6 | 16 | 1 | 17th August 1926. |
| Deolali Cantonment .. | .. | .. | .. | 2 | .. | August 1915. |
| Ahmedabad .. .. | 662 | 93 | 14 | 8 | 20 | 6th July 1918. |
| Ahmedabad Cantonment .. | 1 | .. | .. | .. | .. | Do. |
| Karachi .. .. | 136 | 55 | 52 | 8 | 104 | October 1879. |
| Hyderabad .. .. | 123 | 8 | 50 | 12 | 6 | February 1914. |
| Hyderabad Cantonment .. | .. | .. | .. | .. | .. | Do. |
| Sukkur .. .. | 1 | 47 | 1 | .. | 2 | June 1904. |
| Rohri .. .. | 1 | 5 | .. | .. | 5 | Do. |
| Larkana .. .. | 3 | 25 | 4 | 2 | .. | April 1899. |
| Ahmednagar Cantonment .. | .. | 1 | .. | 1 | .. | 26th April 1925. |
| Ahmednagar City .. | .. | 7 | 2 | 113 | 7 | 25th October 1928. |
| Belgaum Cantonment .. | 1 | .. | .. | .. | .. | 26th April 1925. |
| Aden .. .. | 2 | 5 | 8 | 2 | 11 | 28th December 1916. |

In Deolali Cantonment there were 212 primary vaccinations performed by the S. M. S. Officer in charge of the Cantonment Hospital of which 123 were returned as successful giving a percentage of 58·02.

The Compulsory Vaccination Act was brought into force in Ahmednagar City from 25th October 1928.

75. The practice of inoculation was detected in Khipro Taluka (Thar and Parkar District) by the vaccinator and case was filed in the Court of Third Class Magistrate, Khipro, but sufficient evidence could not be procured for bringing the guilty persons to book.

76. No ill-effects were reported to have occurred after vaccination during the year.

77. The Chief Engineer, Lloyd Barrage and Canals Construction, arranged for vaccination in the Township and at the quarries to be performed by the Health Officer of the Barrage, who was given assistance of a candidate vaccinator at the time of small-pox.

78. A diagram illustrating the proportion of population protected by vaccination during the seven years from 1st April 1922 to 31st March 1929 and the death-rate from small-pox for the year 1928-29 is given as Appendix VI.

79. *General Remarks.*—The Director, Vaccine Institute, attended the Presidency Health and Welfare Exhibition held in Poona in September 1928, where he demonstrated the process of lymph preparation.

A training class for vaccinators was held from 1st July to 30th September 1928. There were in all 19 candidates all of whom passed the final examination.

Other persons trained at the Institute were Mr. Mahomed Ghouse Mohiuddin of H. E. H. The Nizam's Dominions and Dr. Ghanshamdas Keshowndas Kirpalani of Hyderabad (Sind). The former was trained in the methods of manufacture of lymph and in the general administration of a Vaccine Depot, and the latter was deputed by the Hyderabad Municipality to get the necessary knowledge in technique of vaccine manufacture and vaccination required for a Superintendent of Vaccination. He was given the required training.

"Afrin Namas" were granted by the Assistant Director of Public Health, Sind Registration District, to seven influential gentlemen for rendering help to the Inspectors and Vaccinators in the performance of their duties.

## SECTION VIII—No remarks.

## SECTION IX

### Sanitary Works—Civil.

80. *Municipalities.*—The creation of a new Municipality of Manmad in Nasik District and the abolition of Wambori in Ahmednagar District kept the number of Municipalities unchanged. There are in all 156 Municipal Towns in this Presidency with an aggregate population of 2,682,553. Their total income excluding opening balance for the year was Rs. 37,803,703 of which Rs. 15,593,294 or 46 per cent. was raised by taxation, giving an incidence per head of population of Rs. 5-13-0. Taxation varied between Rs. 15-8-10 in Karachi city and Rs. 1-5-11 in the small Municipality at Mhaswad in Satara District. The figures include a special conservancy cess in the case of many municipalities.

The incidence of municipal income and taxation per head of population in the larger municipalities is as follows :—

| | Income | Taxation |
|---|---|---|
| Bombay .. .. .. .. .. | 27 | 23 |
| Karachi .. .. .. .. .. | 28 | 16 |
| Ahmedabad .. .. .. .. .. | 11 | 9 |
| Poona .. .. .. .. .. | 12 | 7 |
| Surat .. .. .. .. .. | 9 | 7 |
| Sholapur .. .. .. .. .. | 7 | 5 |

The expenditure on Public Health measures came to Rs. 10 per head of population in Karachi city and averaged Rs. 3 for all remaining municipalities.

The following statement shows the birth and death rates among the municipal population in each district. Out of the 156 municipal towns 40 suffered from small-pox, 16 from plague, 25 from cholera and only 2 from influenza.

In 8 Revenue districts as compared with 6 in 1927 the municipal death rate exceeded 30 per 1,000 of population. Comment on death rates in principal towns has already been given in paragraph 22.

*Statement showing birth and death-rates for Municipalities in the Bombay Presidency during the year 1928*

| | Number of Municipalities | Ratio of births per 1,000 of population | Ratio of deaths per 1,000 of population | | | | |
|---|---|---|---|---|---|---|---|
| | | | Cholera | Small-pox | Plague | Influenza | All causes |
| Ahmedabad .. | 9 | 41·84 | .. | ·03 | .. | ·01 | 39·52 |
| Kaira .. .. | 8 | 36·99 | .. | .. | .. | ·01 | 31·73 |
| Panch Mahals .. | 2 | 36·55 | .. | .. | .. | .. | 20·75 |
| Broach .. .. | 3 | 43·84 | .. | .. | .. | .. | 28·79 |
| Surat .. .. | 3 | 37·59 | ·01 | ·03 | ·84 | ·01 | 34·30 |
| Thana .. .. | 4 | 25·40 | ·21 | ·35 | ·88 | .. | 23·02 |
| East Khandesh .. | 12 | 37·33 | 1·73 | ·04 | .. | .. | 24·78 |
| West Khandesh .. | 7 | 42·07 | ·46 | ·04 | .. | .. | 28·00 |
| Nasik .. .. | 9 | 27·59 | ·92 | 2·91 | ·54 | .. | 28·01 |
| Ahmednagar .. | 2 | 32·70 | ·28 | 2·44 | ·04 | .. | 21·28 |
| Poona .. .. | 11 | 23·59 | ·56 | ·25 | ·10 | .. | 33·22 |
| Satara .. .. | 12 | 27·29 | ·78 | ·80 | 9·54 | .. | 32·16 |
| Sholapur .. | 5 | 38·64 | ·96 | 1·85 | ·03 | .. | 39·72 |
| Belgaum .. | 6 | 31·23 | ·01 | ·05 | ·36 | .. | 22·31 |
| Dharwar .. | 10 | 33·40 | ·02 | ·14 | 6·49 | ·01 | 32·19 |
| Bijapur .. .. | 4 | 38·46 | ·01 | ·01 | ·05 | ·08 | 30·05 |
| Kanara .. .. | 8 | 29·02 | .. | ·31 | 1·38 | .. | 22·59 |
| Kolaba .. .. | 7 | 22·42 | .. | ·36 | 1·44 | .. | 17·23 |
| Ratnagiri .. | 4 | 29·25 | ·03 | ·61 | ·58 | ·07 | 22·78 |
| Karachi .. | 5 | 50·51 | .. | .. | .. | .. | 27·45 |
| Hyderabad .. | 6 | 35·95 | .. | ·07 | .. | .. | 26·31 |
| Larkana .. .. | 5 | 34·02 | ·52 | .. | .. | .. | 23·79 |
| Thar and Parkar .. | 2 | 22·58 | .. | .. | .. | .. | 21·27 |
| Nawabshah .. | 2 | 31·39 | .. | 2·84 | .. | .. | 19·20 |
| Sukkur .. .. | 5 | 33·35 | ·02 | ·05 | .. | .. | 24·94 |
| Upper Sind Frontier | 1 | 18·06 | .. | .. | .. | .. | 11·91 |
| Bombay Suburban .. | 4 | 22·03 | ·03 | ·04 | ·06 | .. | 16·54 |

81. The Assistant Directors of Public Health in the course of their regular tours and special visits make a point of conferring with the councillors of Local Bodies or their officers on matters that concern public health.

During the year, complete sanitary surveys of 13 towns were made and inspection or reports in the case of 140 more. Advice was given in all these and in numerous other cases in matters of water-supply, conservancy, prevention of spread of disease and in measures of a more general nature. Action was taken by many of the municipalities on

the suggestions of Assistant Directors, of which the following is a brief summary :—

Bhusaval, Dhulia, Nandurbar, Sirur, Manmad, Bandra, Hubli, Byadgi, Bagalkot, Hyderabad and Ahmedabad constructed new latrines.

Nasik, Bandra and Hyderabad constructed new drains.

Pafola, Bhusaval, Faizpur, Dhulia, Nandurbar, Sirur, Kurla, Manmad, Belgaum, Dharwar, Gadag, Byadgi, Ranebennur, Bijapur, Bagalkot, Karwar and Sukkur constructed new gutters.

Bandra and Ghatkopar-Kirol pruchased motor trucks, for removal of rubbish and sullage water ; and Belgaum one for removing Kutchra and one for watering the streets.

Erandol, Dhulia and Sanand purchased new dust bins.

Bulsar purchased sullage carts.

Bandra, Sirsi and Hyderabad constructed new markets.

Manmad employed a qualified Sanitary Inspector.

Kurla reclaimed a portion of the creek and filled in borrow pits.

Hubli and Ghatkopar-Kirol adopted the Nasik system of trenching excrementatious matter.

Halyal converted step well into draw well.

Dharwar Municipality in co-operation with the District Local Board removed the silt from the Someshwar Tank.

In addition to the above, repairs to existing drains, markets, wells, free distribution of quinine and medicines for the prevention and cure of cholera and other works of public health utility were undertaken by many Municipalities.

The Assistant Director of Public Health, Gujarat Registration District, states that the Nasik system of trenching night-soil is working satisfactorily in 8 towns. The system has proved a great success in Nadiad and Surat. Rs. 594 and Rs. 1,128 were realised from the sale of the poudrette by the Nadiad and Surat Municipalities respectively. Godhra Municipality realised Rs. 102 against Rs. 52 in the previous year and the Poudrette is much in demand among the cultivators. The system has been introduced in some of the towns in Khandesh and Nasik. Hubli and Ghatkopar-Kirol Municipalities introduced it during the year under report and some of the Notified Area Committees in the Bombay Suburban District propose to adopt it. When this system is properly worked with due attention to detail it provides excellent manure for which there is always a demand.

During my recent tour I have recommended its adoption in Hungary and Egypt and am awaiting to hear of the results with interest.

The Assistant Director of Public Health, Sind Registration District, at every visit to Municipal towns impressed upon the Local Authorities the advantages of Nasik system and the danger of the prevailing system or no system.

82. *Municipal Health Staff.*—During the year under report fully qualified Medical Officers of Health were employed in Karachi, Hyderabad, Ahmedabad, Surat, Poona and Sholapur. In Karachi and Ahmedabad qualified Assistant Health Officers were also employed. Health Officers

holding the medical degree of the Bombay University in addition to the Sanitary Inspectors' certificate and the B.Hy. (Bombay) were employed at Bandra and Bijapur. Nasik and Dhulia had a Health Officer possessing the qualifications of a Medical Officer for a second class town, while Dakore, Nadiad and Saundatti employed Licentiates of the College of Physicians and Surgeons holding Sanitary Inspectors' certificates.

Rao Saheb Dr. Gune, L.M. & S., continued to hold charge at Pandharpur.

Eighty-four qualified Sanitary Inspectors were employed in 40 towns as compared with 80 and 36 respectively in 1927; Ahmedabad 15; Poona 8; Sholapur 6; Surat 6; Karachi 3; Nasik 3; Ahmednagar, Pandharpur, Gadag, Bijapur, Hubli, Belgaum, Sukkur, Hyderabad and Shikarpur 2 each; and the following one each Kalyan, Bandra, Malegaon, Manmad, Igatpuri, Trimbak, Thana, Dhulia, Jalgaon, Bhusaval, Chopda, Amalner, Kurla, Ghatkopar, Barsi, Panchgani, Satara, Bagalkot, Viramgaon, Broach, Rander, Godhra, Larkana, Tando Adam and Rohri.

83. *Training of Sanitary Officers.*—One hundred and two new students were on the class roll in Bombay, 83 of whom together with 31 students from previous classes made up the total of 114 that appeared for the Sanitary Inspectors' Examination. Of these, sixty-three passed the examination and obtained the certificate of the Royal Sanitary Institute, London. Among the successful candidates were four medical graduates of the Bombay University, two L.M.P., one from Madras and the other from the Central Provinces, and three L.C.P.S.

More advanced classes were held for medical men and at a further examination 4 out of 6 were passed as qualified to hold the post of Medical Officer of Health in a second class town.

84. *Inspection of Local Sanitation by Dispensary Medical Officers.*—Thirty-eight Dispensary Medical Officers in Western Registration District, 9 in Central Registration District and 12 in Gujarat Registration District gave advice to local bodies and assistance in public health matters. The Medical Officers at Modasa, Dholka and Sanand, receive small allowances of Rs. 5 to Rs. 10 per mensem from the Municipality for undertaking Sanitary inspection of the towns.

85. *Sanitary Boards.*—The report on its working is published independently.

86. *Extension of Village Sites.*—Progress in this direction may be summarized as under :—

*East Khandesh.*—Healthy open sites were selected and laid out into building plots in 4 villages—Jowakheda, Borkheda, Adgaon and Salve in Erandol Taluka, and one in Amalner. Plots of unassessed Government waste lands adjoining the villages were added to Varod and Kurwal in Chopda Taluka.

*Dharwar.*—Land was acquired for the extension of Chinchali (Gadag Taluka), Jantli (Mundargi Taluka) and Hiremallur (Bankapur Taluka) to relieve overcrowding.

*Bijapur.*—Land was acquired for the villages of Arjanagi (Bijapur Taluka) and Gudur S. Chiknal (Hungund Taluka) respectively.

*Kolaba.*—Land in the village of Birwadi (Mahad Taluka) was acquired and divided into 36 plots varying in area from 1 to 3 gunthas leaving 12 gunthas for road.

*Poona.*—4 acres of land were acquired at the village of Bori B. K. (Indapur Taluka) and village planning is attended to in cases where plots are laid out with roads intersecting them.

*Ahmedabad.*—Land was acquired in five villages (1) Bhuvali, (2) Kamod, (3) Bareja, (4) Ashlate, and (5) Istolabad in Viramgaon Taluka. In Kamod, whole of the old village site was abandoned on account of floods and a new site assigned. Houses have been erected in regular lines leaving broad roads between the rows. In the remaining villages also houses have been erected in regular lines leaving ample open spaces for roads, etc.

*Kaira.*—Land was acquired for Alarsa village (Borsad Taluka) and Modaj (Mehmedabad Taluka) and village planning was attended to.

*Broach.*—The heavy flood in 1927 caused considerable damage to houses in Dadapur village of Amod Taluka and washed away some portion of the village site. It was therefore considered expedient to abandon the old site, and lands measuring 16 acres and 6 gunthas were acquired under the Land Acquisition Act at the cost of Rs. 5,400-8-0 to be borne by Government and the Bombay Central Flood Relief Committee in equal proportion.

*Upper Sind Frontier.*—Land was acquired for the extension of Thul Town at a cost of Rs. 8,685.

87. *District and Taluka Local Boards.*—The aggregate income of the 27 District Local Boards and 222 Taluka Local Boards amounted to Rs. 1,98,33,901. Income and taxation per head of population were Rs. 1-4-8 and Rs. 0-5-0 respectively, against Rs. 1-1-7 and Rs. 0-4-9 in 1927. A total sum of Rs. 31,15,600 was spent by these Boards on communications, while Rs. 9,91,874 were spent under the head of Public Health Works.

Under Government Resolution, General Department, No. 1570 of 2nd April 1928 the following grants were placed at the disposal of the Commissioners of Divisions for distribution among the District Local Boards of the Presidency and Sind. These grants are intended to be utilized primarily for expenditure on roads and bridges :—

| | | |
|---|---|---|
| Northern Division | .. | 4,62,000* |
| Central Division | .. | 5,82,000 |
| Southern Division | .. | 4,22,000 |
| Sind | .. | 4,34,000 |

* Including the allotment for the Bombay Suburban Division.

Under Government Resolution, Revenue Department, No. P-27 of 19th March 1928, the following grants were placed at the disposal of

Commissioners of Divisions for distribution among the District Local Boards of the Presidency and Sind for improvement of village water supplies: Northern Division Rs. 1,34,600; Central Division Rs. 98,000; Southern Division Rs. 30,000; Sind Rs. 18,800 and Bombay Suburban Division Rs. 2,000. These grants were supplemented by allotments from Local Funds and popular contributions, and were expended on constructing wells, tanks, troughs and cisterns, in repairing old wells and closing step-wells and in boring operations.

Six hundred and eighty-four draw wells were constructed during the year. Twenty-seven step-wells were converted into draw wells.

88. *Notified Areas.*—There were 26 Notified Area Committees working in the Presidency during the year under report as compared with 25 in the previous year (committees which had not commenced work are excluded).

The population served by these Committees was 99.574 and the total income from revenue excluding opening balance came to Rs. 5,17,245 giving an incidence of income per head of Rs. 5-3-1. The following tables show the details of income and expenditure and the combined birth and death-rates for Notified Areas in each district:—

*Statement showing income and expenditure of the Notified Area Committees in the Bombay Presidency during the year 19..8-.9.*

| District | Serial number | Names of towns and villages | Population | Income including opening balance | Expenditure | Closing balance |
|---|---|---|---|---|---|---|
| Bombay Suburban | 1 | Andheri .. | 6,211 | 78,390 | 63,973 | 14,417 |
| | 2 | Borivli .. | 5,957 | 20,650 | 14,473 | 6,177 |
| | 3 | Malad .. | 8,520 | 23,987 | 21,273 | 2,714 |
| | 4 | Santa Cruz .. | 6,092 | 122,351 | 85,720 | 36,631 |
| | 5 | Vile Parle .. | 7,479 | 211,666 | 193,785 | 17,881 |
| | 6 | Kandivli .. | 3,444 | 9,458 | 9,006 | 452 |
| | 7 | Ambarnath .. | 3,265 | 10,427 | 4,378 | 6,049 |
| | 8 | Chembur .. | 3,191 | 3,994 | 3,587 | 407 |
| | 9 | Mulund .. | 3,000 | 5,624 | 4,224 | 1,400 |
| Ratnagiri .. | 1 | Rajapur .. | 6,331 | 18,375 | 17,111 | 1,264 |
| | 2 | Dapoli .. | 2,689 | 12,942 | 7,797 | 5,145 |
| | 3 | Khed .. | 3,842 | 25,862 | 16,079 | 9,783 |
| Bijapur .. | 1 | Hungund .. | 5,563 | 3,102 | 2,784 | 318 |
| Sukkur .. | 1 | Koti Sultan .. | 1,696 | 2,291 | 1,170 | 1,121 |
| | 2 | Mirpur Mathelo .. | 1,642 | 1,443 | 1,281 | 162 |
| | 3 | Ubauro .. | 1,716 | 2,970 | 2,262 | 708 |
| | 4 | Khairpur Dahorki | 1,657 | 4,156 | 2,009 | 2,147 |
| Nawabshah .. | 1 | Kandiaro .. | 3,013 | 2,742 | 1,436 | 1,306 |
| | 2 | Naushahro .. | 3,400 | 3,767 | 3,707 | 60 |
| | 3 | Nawabshah .. | 2,073 | 29,225 | 26,432 | 2,798 |

| District | Serial number | Names of towns and villages | Population | Income including opening balance | Expenditure | Closing balance |
|---|---|---|---|---|---|---|
| Larkana .. | 1 | Meher .. | 2,746 | 19,552 | 9,387 | 10,165 |
| | 2 | Khairpur Nathanshah. | 1,484 | 4,165 | 2,019 | 2,146 |
| | 3 | Dadu .. | 2,996 | 9,100 | 3,857 | 5,243 |
| Hyderabad .. | 1 | Tando Jam .. | 2,634 | 4,478 | 2,143 | 2,335 |
| Poona .. | 1 | Talegaon Dabhade | 1,080 | 2,697 | 2,128 | 569 |
| Dharwar .. | 1 | Annigeri .. | 7,853 | 536 | 533 | 3 |
| | | | 99,574 | 633,950 | 592,554 | 131,396 |

*Statement showing by districts, combined birth and death rates for Notified Area Committees in the Bombay Presidency during the year 1928-29.*

| Districts | No. of notified area committees | Ratio of births per thousand of population | Ratio of deaths per 1,000 of population | | | | |
|---|---|---|---|---|---|---|---|
| | | | Cholera | Small pox | Plague | Influenza | All other causes |
| Bombay Suburban. | 12 | 15.47 | ·07 | ·12 | ·19 | .. | 15.02 |
| Ratnagiri .. | 3 | 29·35 | ·07 | .. | .. | .. | 22·62 |
| Bijapur .. | 1 | 38·48 | .. | .. | ·36 | .. | 25·71 |
| Sukkur .. | 4 | 28·82 | .. | .. | .. | .. | 22·79 |
| Nawabshah .. | 3 | 22·10 | .. | .. | .. | .. | 18·51 |
| Larkana .. | 3 | 24·63 | .. | .. | .. | .. | 25·60 |
| Hyderabad .. | 1 | 39·23 | .. | .. | .. | .. | 18·84 |
| Poona .. | 1 | Information not available. | | | | | |
| Dharwar .. | 1 | 30·18 | .. | ·25 | ·13 | .. | 22.79 |

No works of importance were carried out during the year except that the Santa-Cruz Notified Area Committee purchased one motor lorry for the removal of cesspool water and one motor car for watering streets; purchased 25 dust bins and 24 rat traps, filled in two wells and employed one trained Sanitary Inspector. Malad and Vile Parle purchased night soil carts.

89. *Village Sanitary Boards.*—There are two Sanitary Boards working in the Presidency, *viz.*, one at Siddapur in Kanara district and the other at Mandal in Ahmedabad district. Their total income including opening balance was Rs. 3,534-13-9 while expenditure amounted to Rs. 2,513-11-2 leaving a closing balance of Rs. 1020-2-3.

90. *Sanitary Committees and village Panchayats.*—During the year there were working in all 606 Sanitary Committees and Village Panchayats.

Details of income and expenditure and of birth and death-rates for the population under their administration are given in the following tables.

*Statement showing by districts, income and expenditure of Village Panchayats and Sanitary Committees in the Bombay Presidency during the year 1928-29.*

| District | Number of village Panchayats and Sanitary committees | Total income including opening balance | Popular contribution | Total expenditure | Closing balance |
|---|---|---|---|---|---|
| Ahmedabad .. .. | 1 | 6,277 | 1,914 | 5,227 | 1,050 |
| Kaira .. .. | 28 | 48,501 | 14,100 | 23,261 | 25,240 |
| Panch Mahals .. | 6 | 9,988 | 8,092 | 7,206 | 2,782 |
| Broach .. .. | 17 | 46,187 | 14,260 | 27,411 | 18,776 |
| Surat .. .. | 15 | 22,708 | 6,976 | 13,695 | 9,013 |
| Thana .. .. | 36 | 43,006 | 26,214 | 30,350 | 12,656 |
| Total, Northern Division .. | 103 | 176,667 | 71,556 | 107,150 | 69,517 |
| East Khandesh .. .. | 37 | 207,540 | .. | 123,247 | 84,293 |
| West Khandesh .. .. | 13 | 35,967 | 9,221 | 24,185 | 11,782 |
| Nasik .. .. | 26 | 100,496 | 7,595 | 18,522 | 81,974 |
| Ahmednagar .. .. | 18 | 47,775 | 8,945 | 32,539 | 15,236 |
| Poona .. .. | 18 | 47,588 | 8,216 | 25,118 | 22,470 |
| Satara .. .. | 16 | 9,950 | 5,009 | 5,669 | 4,281 |
| Sholapur .. .. | 5 | 9,712 | .. | 7,925 | 1,787 |
| Total, Central Division .. | 133 | 459,028 | 38,986 | 237,205 | 221,823 |
| Belgaum .. .. | 44 | 55,497 | 13,817 | 24,923 | 30,574 |
| Dharwar .. .. | 52 | 39,326 | 27,155 | 22,960 | 16,366 |
| Bijapur .. .. | 30 | 30,388 | 7,551 | 14,219 | 16,169 |
| Kolaba .. .. | 23 | 17,579 | 7,023 | 10,196 | 7,383 |
| Ratnagiri .. .. | 4 | 2,452 | 618 | 1,603 | 849 |
| Total, Southern Division .. | 153 | 145,242 | 56,164 | 73,901 | 71,341 |
| Karachi .. .. | 41 | 24,061 | 6,638 | 15,574 | 8,487 |
| Hyderabad .. .. | 43 | 53,796 | 8,621 | 25,835 | 27,961 |
| Larkana .. .. | 49 | 44,321 | 6,813 | 22,278 | 22,043 |
| Thar and Parkar .. | 26 | 36,636 | 8,003 | 18,865 | 17,771 |
| Nawabshah .. .. | 27 | 37,746 | 7,590 | 18,669 | 19,077 |
| Sukkur .. .. | 17 | 21,814 | 4,878 | 11,913 | 9,841 |
| Upper Sind Frontier .. | 12 | 25,765 | 5,380 | 14,805 | 10,960 |
| Total for Sind .. | 215 | 244,139 | 47,923 | 127,999 | 116,140 |
| Bombay Suburban .. | 1 | 5,870 | 3,404 | 3,523 | 2,347 |
| Grand Total .. | 605 | 1,030,946 | 218,033 | 549,778 | 481,168 |

*Statement showing by districts, combined birth and death-rates for Village Panchayats and Sanitary Committees in the Bombay Presidency during the year 1928.*

| District | No. of village panchayats and Sanitary Committees | Ratio of births per 1,000 of population | Ratio of deaths per 1,000 of population | | | | |
|---|---|---|---|---|---|---|---|
| | | | Cholera | Small-pox | Plague | Influenza | All other causes |
| Ahmedabad .. | 2 | 32·13 | .. | .. | .. | .. | 22·60 |
| Kaira .. .. | 28 | 33·08 | .. | .. | .. | .. | 28·83 |
| Panch Mahals .. | 4 | 39·49 | .. | ·15 | .. | .. | 28·39 |
| Broach .. .. | 17 | 37·69 | .. | ·29 | .. | .. | 30·29 |
| Surat .. .. | 14 | 39·16 | ·05 | ·35 | 2·25 | .. | 27·00 |
| Thana .. .. | 36 | 29·54 | .. | ·09 | ·18 | ·10 | 18·43 |
| East Khandesh .. | 37 | 51·87 | ·93 | ·14 | .. | .. | 31·06 |
| West Khandesh .. | 13 | 51·94 | ·23 | ·03 | ·03 | .. | 30·20 |
| Nasik .. .. | 26 | 50·84 | 1·18 | 1·48 | 1·52 | .. | 40·34 |
| Ahmednagar .. | 18 | 37·49 | ·87 | ·96 | ·01 | .. | 26·10 |
| Poona .. .. | 18 | 29·85 | 1·87 | 1·19 | .. | .. | 20·91 |
| Satara .. .. | 16 | 41·84 | 1·61 | ·81 | 4·76 | .. | 29·21 |
| Sholapur .. | 5 | 36·93 | ·81 | ·23 | .. | .. | 25·61 |
| Belgaum .. | 41 | 40·01 | ·01 | ·37 | 1·89 | .. | 25·45 |
| Dharwar .. | 52 | 39·89 | .. | ·37 | 2·80 | .. | 29·77 |
| Bijapur .. .. | 30 | 39·54 | ·05 | ·29 | 1·75 | .. | 27·35 |
| Kolaba .. .. | 23 | 37·68 | .. | ·17 | ·02 | .. | 25·14 |
| Ratnagiri .. | 4 | 29·46 | ·03 | ·41 | ·40 | ·05 | 22·05 |
| Karachi .. .. | 41 | 25·08 | ·03 | .. | .. | .. | 26·80 |
| Hyderabad .. | 43 | 21·62 | .. | .. | .. | .. | 22·80 |
| Larkana .. .. | 49 | 48·16 | ·74 | ·44 | .. | .. | 22·81 |
| Thar and Parkar .. | 26 | 29·01 | .. | .. | .. | ·37 | 25·23 |
| Nawabshah .. | 27 | 31·50 | .. | ·74 | .. | .. | 21·77 |
| Sukkur .. .. | 27 | 38·09 | .. | .. | .. | .. | 21·78 |
| Upper Sind Frontier .. | 12 | 42·15 | ·15 | .. | .. | .. | 26·72 |
| Bombay Suburban .. | 1 | 22·10 | .. | .. | .. | .. | 18·97 |

The Assistant Directors of Public Health during their tours inspected the sanitary arrangements of the villages where Committees or Panchayats existed and their recommendations for improvements were forwarded to the Revenue Officers concerned.

Examples of useful work done by Sanitary Committees and Village Panchayats are given below :—

Nasirabad, Shendurni, Neri B. K., Waghali, Mehumbre, Pachora, Bhadgaon, Kasare, Nawapur and Holantha constructed new gutters ;

Zodga, Lasalgaon and Mehumbre purchased dust bins; Neri B. K. purchased carts; Pimpalgaon, Dhondaicha-Varvada and Bodwad provided water-supply; Pimpla, Varangaon, Shendurni, Palaskheda, Pachora, Nargal, Padgha, Satana, Edlabad, Umbergaon and several others sterilized water supplies; Shendurni, Paldhi, Neri B. K., Vadhoda, Lohare and Dhondaicha-Varvada purchased disinfectants and medicines for the prevention and cure of cholera; Palaskheda and Ghoti B. K. conducted rat trapping campaigns.

## SECTION X

### General.

*Public Health Laboratories.*

91. The Poona and Karachi Public Health Laboratories continued their valuable work throughout the year. Some bacteriological and pathological work was also done at the Municipal Laboratory, Ahmedabad.

*Poona Laboratory.*—Dr. F. Barretto, D.P.H., was in charge of the Laboratory throughout the year except for two months and a half, from 10th April to 24th June 1928, when Dr. A. daGama, D.P.H., Assistant Director of Public Health, Central Registration District, held charge in addition to his own duties. A large amount of analytical work, mostly in connection with water supplies, was carried out during the year. Routine bacteriological examination of samples from the three main supplies of Poona, *viz.*, the Cantonment, City and Kirkee, was carried on as in the past years to maintain a check on the efficiency at each stage of the process of purification. Thus :—

The samples from Poona Water Works included 265 of raw canal water, 177 of settled water, 271 of filtered water and 362 of chlorinated water.

F ve hundred and twenty-five samples from taps supplied from the service reservoirs were also analysed.

Raw canal water 263 samples, and chlorinated tap water 272 samples, were analysed for Poona City supply.

Samples of water examined from the Pashan Water Works were—Lake water 97, raw water 97, filtered water 96, chlorinated 272 and tap water 51; while from the Holkar's Bridge, settled water 48, filtered water 48 and chlorinated water 46 were analysed.

Three hundred and eighty-eight water samples were received from various municipalities and other bodies and 420 were examined for experimental purposes. The total for the year was 3,698 samples examined bacteriologically and 6,142 chemically.

Chemical work for Poona Cantonment Water Works included examination of 265 samples of raw water ; 125 filtered water and 278 chlorinated water; for Kirkee Water Works 46 raw water. One hundred and seven samples from out stations were also examined.

Besides these 1,007 samples were analysed for estimation of strength (in chlorine) of bleaching powder; 281 for determination of dose of alum; 387 of sewage effluent and 5 of foods and drugs. In addition 24 samples of stools received from the Yeravda Central Prison were microscopically examined.

Dr. Barretto paid two visits to Ahmednagar in connection with the chlorination of the City water supply ; he examined a number of samples

on the spot and explained clearly the correct methods of chlorination to the Medical Officer of Health of the Municipality. He visited Hadapsar in connection with the experiments carried out at the Septic Tanks. Every assistance was rendered by the Laboratory during the Alandi Fair which he visited personally to see to the chlorination of the water supply.

In the course of his duties he visited Pashan, Yeravda, Kirkee, Hadapsar, Poona City Water Works, some of the public institutions and also private houses.

An investigation was undertaken to ascertain whether salt that had been contaminated by sewage pollution in the process of manufacture is likely to contain sewage organisms. The results were not conclusive.

A series of experiments were undertaken to test the efficiency of Chloramine as prepared by the Chloramine Sparklet apparatus, supplied by A. F. Yuill of Bombay and also to compare it with bleaching powder as a sterlizing agent. The Chloramine prepared by adding an ammonia tablet to chlorine gas dissolved in water was found effective only when fresh. Bleaching powder on the other hand is far cheaper and can be used in required quantity and its solution is effective even when 24 or 48 hours old.

Another series of experiments undertaken was to see if the presence of fish in water gave rise to Lactose Fermenters. The fish were kept in sterile water which was tested 5 minutes and 24 hours after putting them in and showed the presence of B. Coli in as low a dilution as 0·0001 and 0·000,001.

Exhibits and apparatus required in the examination of water, etc., were put up by the Laboratory at the Public Health section of the Health and Child Welfare Exhibition held in the New Judicial Court Buildings, Poona, in September 1928 and arrangements were made to explain and demonstrate to the visitors the objects put up at the stall, morning and evening during the period the Exhibition was open.

The Laboratory Assistants were deputed to give lectures in Marathi to the students of the Training College For Men, Poona, at the request of the Principal. Process of bacteriological examination, method of determining dose of chlorine, etc., were demonstrated and explained to the students.

Instructions in sterlization of water were given to a few officers deputed by municipalities and a student from the Victoria Jubilee Technical Institute, while instructions in the analysis of sewage samples were given to the Officer in charge, Effluent Farm Laboratory, Hadapsar.

*Karachi Laboratory.*—Dr. B. Bhujang Rao, M.B.B.S., B.Hy., was in charge of the Laboratory till 8th October 1928 when owing to his deputation to the School of Tropical Medicine and Hygiene, Calcutta, he was relieved by Dr. Dhurandhar, L.M. & S., who continued to hold charge till the end of the year. As stated in the previous report the two Laboratories are still located in two separate buildings, one at Kaimari

and the other on the Artillery Maidan. But Government have recently approved the plans and estimate for making additions to and altering a portion of the New Revenue Offices, Karachi, with a view to the location of the Laboratory in that building. Funds are also provided and it is hoped that the Chemico-Bacteriological Laboratory will be located there before the end of the year.

*Karachi Water supply.*—The chemical and bacteriological examination of raw and chlorinated water was carried out daily as a matter of routine throughout the year. The Municipality installed a liquid chlorination plant in February 1928, and started using liquid chlorine. The estimation of the dose is being carried out and reported daily by phone to the Municipal Medical Officer of Health.

The Officer in charge of the Laboratory visited the plant to study its construction and working. The plant is working satisfactorily. 284 samples of raw water and 683 chlorinated were examined bacteriologically and 281 of raw and 287 chlorinated water were chemically examined. Besides 295 samples were analysed for estimation of strength (in chlorine) in bleaching powder.

*Sukkur Water Supply.*—Samples of raw, settled, filtered and chlorinated water were sent regularly every week to the Laboratory for chemical and bacteriological examinations. Samples of bleaching powder were also sent. The bacteriological results during the later months of the year were not satisfactory and the Officer in charge of the Laboratory visited the water works and gave instructions to the Sanitary Inspector regarding the method of collecting samples from different tanks.

In addition to the Karachi and Sukkur Water Works, samples of water were examined for the Royal Air Force, Drigh Road. A large number of samples were also received from the Sukkur Barrage Works, and various Government Officers in the mofussil and Local Bodies also utilised the services of the Laboratory. In all 1,319 water samples were examined bacteriologically and 910 chemically. Besides, 439 samples were analysed for estimation of strength of bleaching powder.

One hundred and fifty-four samples of food stuffs were examined. There were 73 samples of milk, 69 of ghee and 12 of edible oils.

Three hundred and thirty-five samples of chemical interest were also examined.

The work of the Laboratory is expanding every year as Local Bodies are taking greater advantage of its services. For instance, among the numerous samples sent by the Karachi Municipality, there were 52 samples of milk, 41 of ghee and 243 specimens of throat swabs taken by the Medical Officer of Health, Karachi Municipality, from the Municipal Schools and other infected places in the city.

In addition to the work briefly described above the Laboratory deals with the Medico-legal, Excise, Government miscellaneous and General

Analytical Work. The work done during the year under report may be summarised as follows :—

| | |
|---|---|
| 1. Medico Legal cases including the examination of various articles .. | .. 763 |
| II. Samples from the Excise Department | .. 58 |
| III. Samples of Government stores | .. 42 |
| IV. Miscellaneous .. | .. 27 |

1. The Medico-Legal cases investigated during the year were forwarded from 52 different stations and are arranged in classes as under :—

*Class I.*—Cases of suspected human poisoning—52 cases under this class were examined. These included an instance of poisoning of 67 persons of whom 27 died. Poison was detected in 18 only.

*Class II.*—Cases of suspected animal poisoning—two cases were examined under this class and no poison was detected in either of them.

*Class III.*—Cases of suspected staining with blood. One hundred and eighty-three cases were forwarded for examination, of which 111 were suspected of staining with blood, the remaining 72 with semen or with semen and blood. The total number of articles examined was 540.

*Class IV.*—Miscellaneous cases—In all 11 cases were examined under this class.

*II Samples from the Excise Department.*—Fifty-eight samples were examined under this head and included salt, opium, liquor, etc.

*III Samples from Government stores.*—These included the analysis of restricted drugs—Cocaine, morphine, etc., 42 samples were examined under this head.

*IV Miscellaneous.*—Twenty-seven samples were examined under this head.

*Fairs and Festivals.*

92. *Pandharpur.*—The chief day of the Ashadhi Fair fell on 28th June 1928. The total number of pilgrims who paid the tax was 1,54,127 and there were about 5,262 exemptions. A new palkhi of Shri Shankarji arrived from Nagpur.

*Medical arrangements enroute.*—As usual, lists of the halting places of palkhis, with dates of arrival, were sent to the Surgeon General with the Government of Bombay for the medical arrangements enroute and also to Collectors and State Authorities, through whose jurisdiction the palkhis pass. The palkhis were inspected by the Medical Officers and the Mamlatdars.

A few cases of cholera were reported from Bhimthadi and Malsiras talukas and Man peta in April. Medical Officers were posted in these areas. As the epidemic showed no signs of decline in Bhimthadi taluka three medical officers were posted there before the passing of the palkhis through the taluka. Some of the halting places of the palkhis in Bhimthadi and Malsiras talukas and Man peta were affected. The Vaccinators were ordered to permanganate water supplies along the routes

before and after the arrival and departure of palkhis. The Inspector of Sanitation and Vaccination, Poona District, accompanied the Alandi palkhi upto Saswad. As halting places of the Sopandeo's (Saswad) palkhi in Bhimthadi taluka were affected he was directed to accompany this palkhi from Saswad to Mekhali. Medical Officers on cholera duty in Bhimthadi taluka accompanied the Shri Tukaram Maharaj and Shri Sopandeo's palkhis throughout their march in the taluka. As cases of cholera were reported from Phaltan, the Trustees of the Alandi palkhi were advised not to stop there, but as there was no other convenient halting place and as the State Authorities undertook to take every possible precaution the palkhi was allowed to halt outside Phaltan. The Inspector of Sanitation and Vaccination, Satara, N. D., accompanied the palkhi of Tukaram Maharaj paduka from Satara to the end of his district. He inspected the Alandi palkhi at Lonand. The Inspector of Sanitation and Vaccination Satara, S. D., accompanied the Machindranath palkhi to the end of his charge. The Inspector of Sanitation and Vaccination, Ahmednagar, inspected the Shri Nivrittinath palkhi at Nagar and accompanied the Shri Muktabai Ram palkhi from Nagar to the end of his district. Shri Sheku Boa and Ghadge Boa palkhis were accompanied by Medical Officers throughout their march in the Satara District.

The Assistant Director of Public Health, Central Registration District inspected the Alandi palkhi at Alandi, Saswad and Malsiras, the Tukaram Maharaj at Akurdi and Saswad and Sopandeo's palkhi at Saswad. All the palkhis were inspected at Wakhari.

*Arrangements at Wakhari.*—Water was taken in the reservoir on the 15th of June 1928, and was treated with alum and potash permanganate. The old iron tanks were replaced with new ones. A temporary cholera hospital was opened and trenches were provided.

*Arrangements at Pandharpur.*—The usual medical arrangements were ready well before the pilgrims began to arrive in Pandharpur. Thirteen Sub-Assistant Surgeons and 19 medical students were employed. The Infectious Diseases Hospital was in charge of Dr. G. P. Phadke, the Municipal Medical Officer. The incoming and outgoing pilgrims were inspected at the Railway Station and at Octroi nakas. Ambulances for the immediate removal of the sick were provided. Seventy-six cases were detected at the Octroi nakas. Ten Sub-Inspectors assisted by Sub-Assistant Surgeons were employed to detect cases in the town. The cases were isolated with contacts.

Twelve qualified Sanitary Inspectors and the usual extra staff of sweepers, scavengers, bhangees, etc., were also entertained.

*Latrines.*—Four sets of trench latrines were provided and the usual conservancy arrangements made. The latrines were served twice a day. Three new night soil carts were purchased and put into use.

*Food supply.*—Food stuffs were inspected and when found unfit were destroyed. Importation of mangoes was prohibited by the District Magistrate during the fair days. This order proved useful.

*Water supply.*—There was some shortage of water in the beginning as the boiler was out of order. The defect was soon remedied and sufficient water was available on the chief days. All the wells in and around Pandharpur were regularly permanganated.

*Health of pilgrims.*—The first suspicious case of cholera at Pandharpur was detected on 25th June 1928. The man had come from the Berars. One hundred and twenty-six cases of cholera including those of diarrhœa were admitted in the hospital of which 76 died. Thirty-four cases were from among the followers of the Alandi palkhi. Only a few villages in Sholapur and Ahmednagar Districts were infected through the pilgrims returning from Pandharpur.

In the Western Registration District the pilgrims returning from Pandharpur infected 8 villages; while in the Southern Registration District first cases of cholera in several villages were among the returning pilgrims; thus the out-break of cholera during the Ashadhi Fair was the beginning of the epidemic in that Division.

At the Kartiki Fair at Pandharpur which is next in importance to the Ashadhi, the attendance was 114,000. The usual additional medical and conservancy staff was employed and the fair passed off without any epidemic.

*Alandi.*—The big day of the Kartiki Fair fell on 7th December 1928. The Assistant Director of Public Health visited Alandi before and during the fair and made suggestions and supervised the arrangements. No cholera cases occurred.

Sanitary arrangements were also provided at Shingnapur (30,000 pilgrims) and at Shirala (22,000 pilgrims). All other smaller fair centres in the Central Registration District were free from any epidemic disease.

In the Western Registration District the principal fairs at Nasik and Trimbak were the Nivritti in January, Mahashivratra in March, the Ramnavami in April and the Kartiki in November 1928. The number of pilgrims during these "Parvanis" varied considerably, ranging from 1,500 during the Kartiki to 40,000 during the Nivritti fair.

The Assistant Director of Public Health inspected the fair areas before, during and after the festivals at all odd hours and at times paid surprise visits.

The sanitary measures adopted at these fairs at Nasik included—

The water-supply storage cisterns for the city and the Indra Kund were regularly sterilized, and the usual sanitary measures, standardised during previous years, adopted.

At Trimbak chlorinated water was provided all through the day and night during festivals and public wells were regularly sterilized during the fair.

The "Kushavarta," the sacred bathing tank, was treated with bleaching powder every evening during the fairs and a day after the fair. The tank was emptied and cleaned four times during the year, *viz.*, in January, February, May and July.

There were 20 attacks and 14 deaths from cholera, 70 attacks and 37 deaths from small-pox and 63 deaths from plague at Nasik. At Trimbak there were 3 attacks and 2 deaths from cholera and 5 attacks and 2 deaths from small-pox.

This is regretable in view of the complete immunity enjoyed by these two towns from any epidemic disease during the previous seven years, and the occurrence of even these few cases of plague and cholera may be due to the "easing off" of the stringent measures adopted during previous years.

Saundatti Yellamma Fair (January, November and December) in the Belgaum District, Yamnur (March), in Dharwar District and Gokarn (March), in the Kanara District are the important fair centres in the Southern Registration District to which people from all parts of the Presidency are drawn. The total number of pilgrims attending the fairs is about 10 to 50,000 at the Yellamma fair, 60,000 at the Yamnur festival and 30,000 at Gokarn. All the wells at these pilgrim centres were sterilized during the fairs under the direct supervision of the Inspectors of Sanitation and Vaccination of the districts concerned.

*The Yamnur Fair.*—As this fair was responsible for the spread of cholera in 1927 all details of the sanitary arrangements were suggested to the Collector about a month in advance by the Assistant Director of Public Health and all the suggestions were strictly attended to. The arrangements were controlled by the Yamnur Municipality, and the District Local Board, under the Collector of Dharwar. The Assistant Director himself camped at Yamnur during the fair and supervised all the sanitary arrangements in person. The Inspector of Sanitation and Vaccination and two other qualified Sanitary Inspectors were deputed for fair duty. The services of Medical Officer of Health of the Dharwar District Local Board were made available. The fair area was divided into four sections, each under the direct supervision of one of the supervising staff. Definite plots, with separate trench latrines for males and females for each section, were fixed and no one was allowed to use any other place for the purpose.

These fairs passed off with a clean bill of health.

The festivals at Vautha in Dholka Taluka and Shukaltirth in Broach Taluka were both held on 27th November 1928.

The Inspector of Sanitation and Vaccination was deputed for the fair duty at Vautha. Trench latrines were provided at suitable places with an adequate staff. Wells were permanganated before, during and after the fair. The fair passed off without any outbreak of disease. About 100,000 pilgrims visited this festival.

The fair at Shukaltirth was attended only by 8,000 pilgrims as compared with 20,000 in 1927 and 50,000 in 1926.

Sanitary arrangements were satisfactory and the fair passed off without any outbreak of disease.

The Manikthari Punem Fair at Dakore came off on 27th October 1928. As cases of influenza were occurring at Dakore, the District Magistrate at the request of the Assistant Director of Public Health issued an advisory notice pointing out that the disease was likely to assume an epidemic form and spread widely if there was a large congregation of people at the coming Punem Fair. People were therefore advised not to visit Dakore. The notice was given wide publicity. The Assistant Director of Public Health encamped at Dakore during the fair days and supervised sanitary arrangements. There was no epidemic.

The services of Inspectors of Sanitation and Vaccination were placed at the disposal of the district officials for fair duty whenever it was possible to do so.

The Lal Shahbaz Fair at Sehwan (Sind) was held from 11th to 13th February 1928 and was attended by about 25,000 pilgrims.

No Government Medical Officer was deputed on fair duty. No arrangement for the medical inspection of pilgrims was done at the Railway Station. The Municipal dispensary was kept open for the treatment of pilgrims.

The Inspector of Sanitation and Vaccination. Karachi District, who was deputed to Sehwan on special duty in connection with the fair was in charge of the sanitation of the town. The water supply was from wells and Aral Canal. The supply was maintained continuously day and night. The Inspector with the assistance of the Municipal Secretary sterilized all the wells used by the pilgrims for drinking purposes.

No cases of infectious diseases occurred during the fair.

*Sanitary Associations.*

93. *Karachi Health Association.*—The Association maintains a Maternity Home named after Mr. Beherumal Thakurdas. This institution is reported to be gaining in popularity every year. There are 18 beds in charge of a fully qualified nurse and all cases are conducted entirely free of charge. During the year under report 564 mothers took advantage of the Home against 445 in the preceding year showing an increase of 119 cases.

Besides the maternity cases mentioned above 270 ante-natal cases were treated for various disorders. 604 Gynæcological cases were also examined of which 30 required operations.

In addition to maintaining this Maternity Home, very useful work is being done by the out-door staff of the Association. The two Lady Health Visitors whose work is to pay house to house visits and give advice to mothers on care and nurture of infants paid 2,442 visits during the year. The midwives of the Association located in different quarters of the City conducted 981 maternity cases against 1,026 in the previous year. This fall, of 45 only, is attributed to the absence of one of the midwives practically throughout the year. Of the 981 cases, 650 were attended to free of charge and Rs. 2,500 were received for attendance on

the remaining. Rs. 1,700 were paid to the midwives for satisfactory work and Rs. 27 to the Dais for bringing labour cases for treatment to the Association's midwives.

At Hyderabad the training of untrained "Dais" in maternity work was conducted under the guidance of Miss Piggot whose organisation has been expanding. During the year 55 Dais were under supervision; 26 Dais appeared for examination and all passed; and 192 were under training. 326 midwifery cases were superintended. 7,366 women attended the lectures and 21 villages were visited.

*Red Cross and Health Societies, Hyderabad.*—The activities of this Branch were mainly directed towards maternity and child welfare work. A trained midwife was maintained throughout the year. She conducted 47 labour cases free of charge and there was no death or any ill-effects due to the fault of the midwife. Magic lantern lectures on the general Hygiene, Sanitation, Maternity and Child Welfare were delivered by the Secretary, Red Cross and Health Societies.

*The Mrs. Hamid Ali Red Cross Maternity Home, Larkana.*—During the year under report 142 deliveries were conducted out of which 80 were indoor and 62 outdoor as compared with 192 (132 and 60) during 1927.

*Ishwari Bai Sitaldas Tirathdas Maternity Home, Shikarpur.*—During the year 569 cases were conducted. 475 inside the Home and 94 outside.

*The Health Association, Shikarpur.*—The Medical members of the Association met frequently and considered the monthly figures of births, diseases and deaths and planned lectures on public health.

*Broach Sanitary Association.*—The Demonstrator of the Association delivered 26 short lectures on health subjects with the aid of magic lantern in the city and 11 in the district. He also delivered 23 lectures in villages explaining the illustrated charts on different subjects. Under the auspices of the Association a public lecture on "the task of the Hygienist" was delivered by Dr. Jamshyd Munsiff (Officiating Director of Public Health for the Government of Bombay).

The Association published and distributed leaflets on malaria, care of the eyes, etc., prepared posters on maternity and child welfare and organised ambulance classes.

In addition to the 3 table dispensaries in the Mill Areas of the city and 24, in the district, 20 dispensaries were opened in the mofussil during the year for giving elementary medical aid in ordinary ailments. All these dispensaries are worked through school masters who are given special training for the same every year and the expenditure is shared jointly by the Sanitary Association and the Local Red Cross Society. In all 8,959 patients took benefit of the scheme. During the malaria season quinine was distributed free in the City and the mofussil.

In co-operation with the Local Red Cross Society the Association has engaged a trained midwife for visiting new born babies and their mothers, for giving them advice, etc., she visited.517 mothers during the year.

The Ahmedabad Sanitary Association organised 52 magic lantern lectures in different parts of the city. In these lectures, slides on maternity and child welfare, cholera, malaria, tuberculosis, Small-pox, House fly, temperance and general sanitation were exhibited. In addition to these two lectures were organised for the benefit of the school children and one for the mill labourers. About 4,000 leaflets on plague, influenza and child welfare were distributed during the demonstrations.

It was decided at first to spend the Government grant of Rs. 1,000 on opening a welfare centre and appointing a Lady Health Visitor for that purpose. But as a suitable Health Visitor could not be obtained it was decided to spend the amount in purchasing models, etc., for the Sanitary Museum.

During the first part of the year the attention of the Association was mainly engaged in drafting a plan for working "Lady Wilson Village Baby Scheme" for training the dais of the city and the District of Ahmedabad. Dr. Jacob E. Soloman was deputed to Poona to study the working of the scheme there. The scheme was accordingly drafted and submitted to Government for a grant equal to one-third of the total expenditure. Dr. Soloman also visited the mills at Sholapur to see the welfare activities carried on by the mills there. He attended the Baby Week celebrations at Baroda and Broach and delivered lectures. With the help of Dr. Soloman as a Divisional Secretary for Gujarat of the Bombay Presidency Baby and Health Week Association, new Associations were started at Viramgaon and Dholka.

Surat Sanitary Association delivered eight lectures on subjects of public health interest of which seven were accompanied by cinema shows. Demonstrations on the management of labour were also given during these lectures which were attended by 1,925 persons in all.

The Red Cross Society, Dharwar, carried on education propaganda work in the District by organizing Baby Weeks and Health Shows. The expenditure being met by popular contributions. 28 shows were held in all. Nine Red Cross midwives were working in the district. Of these one was attached to the Maternity Hospital at Dharwar as Health Visitor. The total number of maternity cases attended to by the midwives was 114.

The Maternity Hospital is in charge of a Lady Assistant Surgeon attached to the Civil Hospital. One midwife and two menials are also employed. Fifty maternity cases were treated at the Hospital and about the same number of cases were attended to in the town by the midwife.

The Red Cross Committee in Bijapur District organised eight Baby and Health Weeks mostly at the taluka head quarters. They were attended to by a large number of villagers and were very popular and successful.

There were five midwives working in Kanana District. They are attached to the Nursing Association, Kanara. The services of the midwife of the Karwar Municipality were also transferred to the Nursing Association. One hundred and sixteen delivery cases were attended to by them in the town in addition to those in the Civil Hospital, Karwar.

The Bombay Sanitary Association did much good work during the year under report.

Dr. D. S. Bhandarkar, M.B.B.S., continued to act as a part-time lecturer in Hygiene and delivered 53 open air lectures to the working class occupants of the chawls. During the monsoon 43 magic lantern demonstrations were given in schools. The total number of demonstrations and lectures given under the auspices of the Association amounted to 295.

The Association provided exhibits at the request of the National Baby and Health Week Committee to the Exhibition held near the Vanita Vishram, Sandhurst Road. Selections of posters, diagrams and models from the Museum were lent for the occasion and large number of leaflets were distributed for propaganda and industrial purpose. Donation of Rs. 1,005 was received from the Government of Bombay and Rs. 1,000 and Rs. 419 from the Bombay Municipality and the Royal Sanitary Institute, London.

Other Associations worked according to the indications of local requirements and opportunities.

*Health and Baby Week.*

94. The Health and Baby Week celebrations which are being held in the Presidency for the last six years are making steady progress as will be seen from the following table :—

| Year | Number of shows held | Total attendance | Progress |
|---|---|---|---|
| 1923 .. | 2 | 8,000 | Five lectures on aims and objects of the week. |
| 1924 .. | 5 | 20,000 | The Bombay Presidency Baby Week Committee was started in September 1924 by Lady Wilson. |
| 1925 .. | 29 | 312,820 | Health Week combined with Baby Week. Rs. 81,294 collected as Funds and contributions. 340 lectures with and without magic lantern and cinema shows. 8,078 babies examined and prizes worth Rs. 3,984 awarded. |
| 1926 .. | 50 | 488,550 | Divisional Secretaries were appointed. A generous grant of Rs. 16,000 received from Government. Rs. 60,000 collected as contributions. 626 lectures delivered. 11,000 babies examined. Prizes worth Rs. 6,122 awarded. |

| Year | Number of shows held | Total attendance | Progress |
|---|---|---|---|
| 1927 .. | 92 | 500,000 | First Provincial Health and Child Welfare conference convened in Poona. Lady Wilson Village Maternity Association was permanently organised in July 1927. |
| 1928 .. | 112 | 485,370 (for 44 shows only; figures for the rest not received.) | Baby Week Association consolidated its position by laying aside Rs. 1,500 as capital Fund. Rs. 57,378 collected; Rs. 10,000 received as grant from Government. 321 lectures delivered. 10,228 babies examined. Prizes worth Rs. 4,630 awarded. A Central Council of the Baby Week Association, the Bombay Presidency Infant Welfare Society, and the Lady Wilson Village Maternity Association was created for co-ordination of work; and Lady Sykes has happily become its first President. |

Reports from the Assistant Directors of Public Health fully coroborate the view of Mr. Brayne that "Baby shows are often pandemoniums, let loose, but they are all very cheerful and have many great advantages. We learn a lot about the people, the standard of baby knowledge in the villages and the amount of care given to bring up the families; the people, particularly the women, realise that the Government authorities are really genuinely interested in their welfare and are out to help them.

The following are short notes on the most important shows in the Presidency.

In Sind Registration District the Week was observed in Mirpurkhas for the first time, from 17th to 19th March 1929 with the co-operation of the Municipality and the Thar and Parkar District Local Board. The meeting was held under the Presidentship of Miss R. Piggot of Hyderabad, and was attended by a vast crowd including 400 ladies. Prizes were distributed to 20 children. Magic lantern show on maternity, cinema shows on nursing of children and delivery, models of a good and bad house, protection of the new born baby and the food stuffs from flies and mosquitoes, and the disadvantages of bad teeth were the important items exhibited.

In Gujarat Registration District the outstanding feature was the holding of the Rural Health Section in the Presidency Agricultural Exhibition at Ahmedabad in November 1928. It was divided into 40 stalls arranged in the form of "U", with the active assistance of Dr. Soloman and the Assistant Director of Public Health. There was an unusual rush of visitors, and subjects like "Insanitary lying in Room" "Sanitary lying in Room", Creche stall, Plague stall, etc., were exhibited. Two residential buildings, one for a cultivator and the other for a labourer, a trench for natural purposes, the right method of

storing manure, were demonstrated. Leaflets on "Village sanitation" and "Public Health and Co-operation" written by Dr. Jamshyd Munsiff, Director of Public Health, were freely distributed and read with interest.

In Umreth Town, the Vidyarthi Mandal celebrated the Week from 3rd to 9th November 1928 under the Presidentship of Rao Saheb Dadubhai P. Desai, M.L.C.

In Broach City the show was held from 6th to 10th April 1928, being opened by the Thakore Saheb (now, the Nawab Saheb) of Amod. There was a health procession on the first day and Dr. H. V. Tilak's lecture on the aims of the Baby Week was greatly appreciated by the audience. Prizes were given to 13 healthy babies. Mrs. Gandhi, wife of the Assistant Director of Public Health, Gujarat Registration District, very kindly distributed the prizes.

In the Western Registration District a show was held at Kille in Roha Taluka of the Kolaba District under the auspices of the Taluka Development Association from 9th to 13th February 1928. It was visited by about 30,000 people and Mr. A. N. Surve, Advocate, and Dr. H. V. Tilak gave lectures.

In the Central Registration District the Poona celebration in September 1928 was the principal show of all. A joint exhibition committee was formed under the patronage of Sir Leslie Wilson, and the various local bodies and organizations in Poona interested in the promotion of Health and Child Welfare were represented on the committee. The exhibition was arranged in one of the wings of the New Court Buildings at Bhamburda and was opened by Lady Wilson. It has six main sections :—(1) Rural Health, (2) Maternity and Child Welfare, (3) Urban Health and Sanitation, (4) School Hygiene and Personal Hygiene, (5) Food and Vitamins and (6) Public Health and Town Planning; these again were sub-divided into 50 attractive stalls. Lectures, Magic Lantern and Cinema Demonstrations were arranged and some of the days were aptly named "Mothers' Day", "Villagers' Day", "teachers' Day", "Fathers' Day", "Vitamin Day" and so on. It lasted for 15 days and nearly 100,000 people visited it. The total expenditure came to about Rs. 6,000.

The largest number of shows was held in the Southern Registration District, 38 as compared with 19 in 1927 and 7 in 1926. Of these 29 were in the Dharwar District, Karajgi Taluka alone contributing 11 of them. The interesting feature was that most of the shows in this Taluka were organised by the local public by raising the required funds locally, in co-operation with the Red Cross Society. The show at Bailhongal in Belgaum District was successfully organised personally by the Assistant Director of Public Health and his staff. The show at Hubli in Dharwar District was the first exhibition of the kind in this city. It was opened by the Collector, with a welcome speech by Professor G. K. Gokhale, M.A., about 8,000 people attended it. A stage drama dialogue on Maternity in the vernacular of the district was performed; the Hubli Municipality contributed a lump sum of Rs. 500 for the show.

The Assistant Directors of Sind Registration District and Gujarat Registration District report rather pessimistically that many of the Municipalities and Local Boards, though moved in the matter, could not hold the celebrations, some under the plea of stringency of their funds, some owing to the absence of necessary staff or lack of facilities and some doubting their success or feasibility in the mofussils owing to lack of education in rural areas. But it is hoped that such Local Bodies will realise in time that money spent on Public Health advancement is not an expense but an investment and that unless the Local Authorities join hands with the hygienist and the two make a whole-hearted effort, it is impossible to control diseases or promote health.

*Health of Industrial Workers.*

95. The Assistant Directors of Public Health continued their inspection of factories (under the Act of 1911) in the course of their tours submitting copies of their reports to the Managers and Chief Inspector of Factories.

The Assistant Director of Public Health, Sind Registration District, visited two factories at Karachi—The Karachi Steam Roller Floor Mill and the Municipal Workshop.

The Assistant Director of Public Health, Gujarat Registration District, inspected seven factories all in Broach District. Of these four were cotton ginning factories and three cotton spinning and weaving situated in Broach town. Except in the case of Saraswati Spinning and Manufacturing Company at Broach which is in the inhabited area the location of all the factories is not objectionable and accommodation is sufficient.

Light and ventilation were found fairly good in all the factories, inspected except in the case of Bomanshaw J. Ginning Factory at Hansot. Water for drinking purposes in the mills in Broach town is derived from wells and bores and distributed through pipes. In some factories gutters to drain away waste water are required. Latrines are provided in all the factories but their condition is far from satisfactory. Urinals are provided in some of the large factories but were found in an insanitary condition.

Except in the case of large factories (Mills) some patent medicines and quinine were stocked and it was reported that outside medical aid was procured in case of need. There was no provision for First Aid. No creches were provided.

The Assistant Director of Public Health, Western Registration District, inspected five Match factories during the year under report, *viz.*, the Western India Match Factory at Ambernath, the Ghat-Koper, the Santa Cruz, the Andheri and the Dahisar Match Factory.

No factories were inspected by the Assistant Director of Public Health, Central Registration District.

The Assistant Director of Public Health, Southern Registration District, inspected twelve factories all seasonal. The business carried

on was cotton ginning and pressing and groundnut shelling. At the Khandesh mills, Morabad Ginning Factory and Jane Mill Ginning Factory all at Bailhongal, Shah Manshy at Haveri and Shivanand Ginning Factory at Bagalkot, light and ventilation were defective. In almost all factories conservancy and sanitary arrangements are defective and arrangements for drinking water not satisfactory.

None of the factories inspected by the Public Health staff had any welfare scheme for its work people.

*Personal Proceedings.*

96. The activities of the Officers in charge of the Public Health Laboratories are detailed above.

*Supervising Staff.*—The following table shows the various Officers who held the appointments of Director and Assistant Directors of Public Health and the Director, Vaccine Institute, Belgaum, during the year under report :—

| Appointment | Name | Period | Remarks |
|---|---|---|---|
| Director of Public Health. | Lieut.-Colonel H. M. H. Melhuish, D.S.O., I.M.S. | 1st April 1928 to 24th February 1929. | On leave on average pay. |
| | Dr. J. D. Munsiff, M.R.C.P., F.R.C.S., D.P.H. (Edin.) | 25th February to 31st March 1929. | Acting Assistant Director of Public Health, W. R. D. (On leave) 1st April 1928 to 24th February 1929. |
| Assistant Director of Public Health, Western Registration District. | Dr. R. K. Mhatre, D.P.H. | 1st April 1928 to 31st March 1929. | Acting. |
| Assistant Director of Public Health, Central Registration District. | Dr. Accacio da Gama, D.P.H. | 1st April 1928 to 31st March 1929. | .... |
| Assistant Director of Public Health, Gujarat Registration District. | Dr. K. A. Gandhi, D.P.H. | 1st April 1928 to 25th March 1929. | .... |
| | Major R. H. Candy, I.M.S. | 26th to 31st March 1929. | In addition to his own duties as Civil Surgeon, Ahmedabad. |
| Assistant Director of Public Health, Sind Registration District. | Dr. R. V. Shiveshwarkar, D.P.H. | 1st April 1928 to 25th October 1928 and 5th December 1928 to 31st March 1929. | On Special Duty in connection with the revision of the Manual of Vital Statistics and Public Health from 26th October to 4th December 1928. |
| | Dr. B. F. Khambatta, M.B.B.S., D.P.H. | 26th October to 4th December 1928. | In addition to his own duties as Port Health Officer, Karachi. |

| Appointment | Name | Period | Remarks |
|---|---|---|---|
| Assistant Director of Public Health, Southern Registration District. | Dr. J. L. Pinto, D.P.H. | 1st April 1928 to 6th March 1929. | On leave from 7th March 1929. |
| | Dr. J. B. Mama, D.P.H. | 7th March to 27th March 1929. | Acting in addition to his own duties. |
| | Dr. K. A. Gandhi, D.P.H. | 28th to 31st March 1929. | .... |
| Director, Vaccine Institute, Belgaum. | Dr. J. B. Mama, D.P.H. | 1st April to 31st May 1928 and 1st December 1928 to 31st March 1929. | On leave from 1st June to 30th November 1928. |
| | Dr. J. L. Pinto, D.P.H. | 1st June to 30th November 1928. | Acting in addition to his own duties. |

The Assistant Directors of Public Health visited 640 towns and villages during the year making reports to the local authorities as usual. Dispensaries, schools, police lines, factories, proposed sites for Government buildings, etc., were inspected; courses of lectures in hygiene and public health were delivered to students at the Medical Schools of Poona, Ahmedabad and Hyderabad (Sind) and the students of the Police Training School at Nasik.

The Assistant Director of Public Health, Western Registration District:—Complete surveys of 30 towns, Sanitary Committees and Village Panchayats were made; 3 towns were visited for general advice, 41 towns and villages for sanitary purposes and 230 for vaccination purposes. The Inspectors of Sanitation and Vaccination entered remarks in 7 village Sanitary Inspection Books.

He gave opinion on 21 reports of water analysis received from different parts of his Division, inspected 9 school sites, 4 sites for night-soil depôts and one for vegetable market. He also visited 12 dispensaries, 9 post offices for checking quinine stock and sale and inspected 5 factories. He delivered lectures and demonstrations on Hygiene to the students of the Central Police Training School, Nasik.

He paid special visits to Bhusawal, Jalgaon, Savda, Pachora, Chalisgaon, Sinnar, Yeola and Kalyan in connection with anti-cholera measures and Niphad in connection with anti-plague measures. Meetings were arranged in most places with local authorities for discussing the measures necessary in the affected places.

During the hot season Malegaon was visited by a very severe epidemic of small-pox. One of the chief causes of the out-breaks was the opposition of the Momins to vaccination. The Assistant Director visited Malegaon to help the Local Authorities in pushing on primary and re-vaccination, and a regular vaccination campaign was commenced.

The Guinea-worm Research Work in Kolaba District continued during the year under the supervision of the Assistant Director of Public Heath.

At the request of the Commissioner of Excise he inspected the Ganja warehouse in Bombay and attended the Baby Week celebration.

He attended the Health Exhibition at Poona, attended the meetings of the village Welfare Conference, Leprosy Committee, and District Agricultural Show. He visited the Maternity Home at Alibag. It is located in a spacious building and has ideal situation.

Interviews with Heads of Local Bodies, Heads of Districts and other Government Officers, Provincial Secretaries of the National Baby Week, Bombay Presidency, were included among his activities.

Classes for village officials were held by the Inspectors of Sanitation and Vaccination during the monsoon. Four thousand five hundred and fifty-seven village officers and 1,039 Talatis attended the course.

The Assistant Director of Public Health, Central Registration District :—Complete Sanitary surveys were made of two notified area committees and advice was rendered on public health matters in the case of five towns. He also visited 66 villages for vaccination purposes and the Inspectors of Sanitation and Vaccination 834. He made remarks in one Sanitary Inspection Book and the Inspectors in 26.

The Assistant Director of Public Health attended meetings of the District Committees of the Lady Wilson Village Maternity Association at Poona and Sholapur and meetings of the Council of three Associations at Mahableshwar and Bombay. During his tour he held meetings of the citizens of Vengurla, Chiplun, Deorukh and Kankavli and explained the scheme. He also attended Health and Baby Week celebrations at Bombay, Poona and Pandharpur.

In addition to the usual four big fairs at Pandharpur, *viz.*, Ashadhi, Kartiki, Maghi, and Chaitri, he attended the Adhiki fair this year. He also attended the fairs at Shingnapur, Alandi and Dehu and inspected sanitary arrangements.

He selected four sites for schools two for burial ground, one for police lines, a site for the cholera hospital at Alandi, a site for military camping ground at Sholapur and a sight for night-soil depôt at Khed in Ratnagiri District.

He visited Warje and Khatav in connection with perennial irrigation. Karmala for the investigation of typhus fever, Sholapur for enquiry into small-pox epidemic and investigation of Malaria, Lonawala for investigation into the insanitary condition of the Railway septic tank, Panchgani in connection with the removal of night-soil and kutchra depôts, etc., and Dhond in connection with the sewage of the Railway Colony.

He visited 6 places for inspection of palkhis, 10 villages for the investigation of cholera and 2 for plague. He visited dispensary at Chiplun and the Mission House at Kedgaon. He visited Ahmednagar in connection with the introduction of Compulsary Vaccination Act and selected places for vaccination stations.

He attended the Sixth Conference of the All India Medical Research workers at Calcutta.

He delivered lectures in Hygiene to the students of the B. J. Medical School, Poona.

The Inspector of Sanitation and Vaccination Satara, Southern Division, held classes for village officials at Karad and Shirala; 142 patels and 51 Talatis were present.

The Assistant Director of Public Health, Southern Registration District :—Complete sanitary surveys were carried out of one town, one sanitary committee and five village panchayat Committees. The Assistant Director visited 124 towns and villages for the inspection of sanitation and in connection with plague and cholera and 96 for vaccination purposes. He entered remarks in 3 sanitary inspection books and the Inspectors of Sanitation and Vaccination 62.

He inspected 6 sites for schools 17 for burial grounds and 29 for village extensions. He visited 5 dispensaries, 2 post offices regarding checking of quinine stock and sale, selected a site for post office building at Indi, one site for manure heaps, one for tanneries, one for night-soil depôt and two for refuse depôts. He also inspected the drainage scheme for Bijapur town.

He visited 6 towns and villages in connection with anti-plague measures and 5 in connection with anti-cholera measures, visited 7 villages in connection with the prevalence of malaria.

He paid a special visit to Ugar Budruk in connection with the water supply of the village. He attended the fairs at Devorgudd, Krishnapur, Yamnur, Kudla, and Saundatti in connection with sanitary arrangements made by the Local Authorities. He visited Mylar fair in Bellary District in connection with the sanitary arrangements on the Bombay Side of the Tungabhadra River near Chandapur and inspected sanitary arrangements.

He attended the Baby Week Show at Poona. A stall was equipped with illustrations showing the working of the Vaccine Institute. These exhibits were viewed with great interest by the visitors. He organised and attended the Baby Week Show at Bailhongal.

As the Division was threatened with cholera at the beginning of monsoon no regular classes for village officials could be held.

The Assistant Director of Public Health, Gujarat Registration District:—Complete sanitary inspection was made of two Municipal towns and 5 village Panchayatas and Sanitary Committees. Sixty-eight towns and villages were visited for Sanitary purposes and 89 for vaccination purposes. He entered remarks in 10 village Sanitary Inspection Books and the Inspectors in 49.

He inspected 3 dispensaries, 2 rain gauges, 13 sites for schools, 5 for police lines, one for leper home, one for slaughter house and 21 for other purposes. Opinion was given on 10 reports of analysis of water samples.

He attended the Manek-thari Punem fair at Dakore, the Baby Week Celebration at Broach and Dholka where he delivered lectures on Public

Health, helped to organise Baby Weeks at Jhadeshwar and three other villages in Broach Taluka and inspected 7 factories. He also attended the Health and Child Welfare Exhibitions held in Poona and delivered the usual course of lectures and demonstrations in Hygiene to the students of the Medical School, Ahmedabad.

In 19 villages recommendations were made to the local authorities concerned and remarks were made by the Assistant Director of Public Health and the Inspectors of Sanitation and Vaccination in the Sanitary Inspection Books urging the necessity for assigning separate plots for the storage of manure or the removal of the same from the surroundings of sources of drinking water-supply.

In all villages visited the Birth and Death registers were scrutinised, checked and remarks entered in the Epidemic Registers of small-pox, plague, cholera, and influenza. Vaccination registers where available were also inspected.

The outstanding feature of the year in Gujarat was the holding of the Rural Health Section in the Presidency Agricultural Show at Ahmedabad in November 1928, and this section served a useful purpose in promoting public health propaganda.

The Inspectors of Sanitation and Vaccination held classes during monsoon for village officers, 985 patels, 361 Talatis and some Municipal Local Board servants attended them.

The Assistant Director of Public Health, Sind Registration District, inspected the sanitary condition of 37 towns and villages, he also visited five towns for other sanitary purposes and 162 villages for vaccination purposes.

During the course of his tour he examined 3,241 school children of whom 1,221 were found with enlarged spleen. He gave opinion on 58 reports of the analysis of water samples, approved 3 sites for schools, 3 for wells, 2 for markets and one for slaughter house, and inspected 2 factories.

He inspected the drainage of Rohri, the sewage farm at old Sukkur and visited Water works, Market and Night-soil Depôt at New Sukkur. At Kotri he called a meeting of the Municipal Councillors and gave them lecture on malaria and vaccination; at Daherki he delivered a lecture on malaria and explained to the public the advantages of trenching night-soil according to Nasik system; at Kandkot he explained to the school masters and students of higher standards the life history of a mosquito and the part some varieties played in propagating malaria. He conducted classes in Hygiene at the Theosophical Society Hall at Karachi and delivered a course of lectures and demonstrations in Hygiene to the students of the Medical School at Hyderabad.

While on tour the Assistant Director distributed 2,000 tablets of quinine. The services of the Inspectors of Sanitation and Vaccination were utilised for free distribution of quinine in malarious tracts. They inspected the sanitary condition of 58 villages and examined 11,186 children in 100 schools of whom 908 were found with enlarged spleen.

Lists of omissions in Birth and Death registers for 2,394 births not recorded by Tapedars were received from vaccinators. The lists were forwarded to the Collectors for necessary action. The Tapedars at fault were warned and the entries were ordered to be made in the Birth and Death registers.

Dr. J. B. Mama, D.P.H., Director, Vaccine Institute, Belgaum, was on leave for six months, during which period he visited a good number of places and saw various Institutes in England and on the Continent with a view to study the different methods adopted particularly for the preparation of small-pox vaccine.

Inspection work of the Assistant Directors of Public Health and Inspectors of Sanitation and Vaccination :—The Assistant Directors of Public Health inspected 17,507 (or 3·09 per cent.) vaccinated persons, in 404 towns and villages and travelled 29,151 miles. The Inspectors of Sanitation and Vaccination inspected 163,602 persons in 7,630 towns and villages travelling 92,283 miles. Thus the results of 181,109 vaccinations or 31·97 per cent. of the total number performed were checked by examination. The success rate of primary vaccination as ascertained by the Assistant Directors of Public Health was 99·01 and by Inspectors 99·14.

The Director of Public Health for the Government of Bombay :— Twenty-five towns and villages were visited in connection with water-supply, drainage, investigation into the causes of epidemics and general sanitation.

He visited Karachi to investigate into the causes of the high mortality from pneumonia in the City.

He inspected the arrangements made for the Ashadhi Fair at Pandharpur, Nivritti Fair at Trimbak, and the fair at Yamnur.

He inspected the Guinea-worm Research Work in Kolaba District, visited Sholapur, Baramati and Rahata in connection with perennial irrigation.

He inspected the water-supply at Mahableshwar, Surat, Nasik, Trimbak, Pashan and Alandi ; inspected the site for the salt pans at Sevari.

He attended the Presidency Agricultural Show at Ahmedabad, attended the meetings of the Malaria Advisory Committee, Bombay City and Anti-malaria Committee. He was a member of the Executive Committeeof the Bombay Presidency Baby and Health Week Association and attended their meetings.

He visited Koregaon, Karad, Mahableshwar and Nasik in connection with plague preventive measures. He met the representatives of the Ross Institute in Bombay.

The tour of the Interchange of Public Health Personnel of the League of Nations mentioned on page 79 of the last Annual Report commenced on 11th February 1928 and terminated on 18th idem. The visitors were shown all due courtesy and hospitality by Government officials and

Public Bodies and the visit which began with a joint reception by the District Loal Board, Dharwar, and the Hubli Municipality on their entering this Presidency on the 11th February ended with a dinner at Government House on the 17th idem the night before the members left the shores of India.

By letter No. S. 20 (16)-D dated the 19th January 1928 Government were pleased to sanction study leave out of India to Dr. Jamshyd Munsiff and also to request the High Commissioner to provide him with the necessary facilities in framing and carrying out his programme.

Dr. Munsiff reported his arrival in London to the High Commissioner on the 11th April and was put in touch with Mr. Montagu Harris and Dr. Pearse of the Ministry of Health who rendered him valuable assistance in drawing up a programme. From the middle of April to the end of September Dr. Munsiff was engaged in studying different public health activities in the United Kingdom and visited Liverpool, Manchester, Reading Preston, Bradford, Plymouth and Edinburgh among other places during the course of his tour.

He also attended the Maternity and Child Welfare Congress at Guildhall early in July 1928, and represented the Government of Bombay at the Royal Sanitary Institute Congress, held at Plymouth later in the same month.

It was deemed advisable that he should visit some continental places also, and the Foreign Office rendered him considerable help in conducting this tour.

Paris, Brussels, Amsterdam, Dusseldorf, Munich, Vienna, Budapest and Constantinople were among the places visited and the British Embassies and Legations in these places were most courteous in arranging the details of his tour with the Local Authorities. He cannot speak too highly of the kindness and hospitality he was shown both by His Brittanic Majesty's representatives and the local officers of the countries he visited.

Dr. Munsiff 's study tour ended at the end of December 1928 with a visit to Egypt as a delegate of the Governments of India and Bombay at the International Congress of Tropical Medicine held at Cairo.

The details of this extensive tour will form the subject of a separate report, but meanwhile he must express his deep sense of gratitude to the High Commissioner, the British Foreign Office, His Brittanic Majesty's Ambassadors and Ministers and to the Local Authorities of the places he visited.

JAMSHYD MUNSIFF,

M.R.C.P. F.R.C.S. D.P.H., (Edin.),
Officiating Director of Public Health.

Poona,
15th August 1929.

## APPENDIX I (*a*)

### ANNUAL REPORT OF THE HEALTH OFFICER OF THE PORT OF BOMBAY FOR THE YEAR ENDING 31ST DECEMBER 1928

### I—*Summary*

The following summary shows the inspection and disinfection work done in the Port of Bombay in connection with out-going and in-coming vessels as well as those lying in the harbour and docks during the year ending 31st December 1928.

Seven hundred and ninety-two vessels of all classes with 171,151 crew and passengers were examined during the year.

The clothing and bedding and other articles of 55,943 members of crews and passengers of out-going and in-coming vessels and of members of crews of vessels lying in the port were disinfected. Of these 44,414 were Asiatic and African members of crews, third class or deck European and Indian passengers, 10,640 were pilgrims who left the port of Bombay for ports out of India, and 889 were members of crews and passengers who arrived by vessels on which cases of infectious diseases had occurred during the voyage or while in the port. In addition to the abovementioned numbers, 2,987 baggage coolies and some stevedores men were inspected in order to enable certain vessels to work cargo for a few hours after medical inspection and disinfection of their crews and passengers.

### II—*Out-going Vessels*

2. In accordance with Government Notification, General Department, No. 1713, dated the 15th March 1917, the medical examination of all vessels, crews and passengers, proceeding to ports out of India and the disinfection of the clothing and bedding of (*a*) all Asiatic and African members of crews, numbering 31,792, of (*b*) all passengers travelling third class who were not provided with cabin accommodation, of fourth class and deck passengers and of all Asiatic and African servants, numbering 12,622 and of (*c*) 10,640 pilgrims who sailed on such vessels, were carried out before they left the port of Bombay.

3. Six hundred and twenty-one outward bound vessels with 71,300 crew and 59,710 passengers, or a total of 1,31,010 persons exclusive of troops who were examined by the Military Embarkation Staff, were inspected as against 594 vessels with 65,884 crew and 66,736 passengers or a total of 1,32,620 persons during the preceding year.

4. Four vessels had cases of small-pox, measles and influenza among their crews and passengers within 12 days prior to their departure from this port. The Bills of Health granted to these vessels mentioned the diseases which had occurred on board as well

as the measures which had been taken before their departure for the prevention of the spread of infection on board or its introduction at other ports.

### III—*Infectious Diseases on Vessels Arriving and Departing and in the Harbour or Docks*

5. In accordance with the rules prescribed under Government Notification No. 1713, dated the 15th March 1917, medical inspection and disinfection of vessels which were actually infected or suspected of being infected were carried out. All pilgrimships and all vessels which arrived from East African Ports between the limits of Durban and Port Sudan were also inspected on arrival.

6. One hundred and sixty-four in-coming vessels with crews aggregating 16,424 persons and 23,184 passengers and pilgrims were inspected during the year. Of these 164 vessels, 20 (including Hired Transports) were found to have had cases of infectious diseases on board at the time of arrival or during the voyage. In connection with these vessels there were 2 cases of small-pox, 41 of measles, 4 of chicken-pox, 12 of influenza, 2 of leprosy, and one of scarlatina. The cases which occurred on Hired Transports were dealt with by the Military Authorties on landing in Bombay, and those among the crews of transports and all persons of other vessels by the Port Health Officer. The cases enumerated above as having occurred among the troops were removed to the Military Hospital on shore for treatment while those among the European crews and passengers were romoved to the St. George's Hospital and those among the Asiatic and African members of crews and passengers to Jamsetjee Jeejeebhoy, Goculdas Tejpal, Arthur Road and Maratha Hospitals.

7. Tabular statement No. 1 gives the number of cases of infectious diseases which occurred on vessels arriving at the port of Bombay and on those lying in the harbour or docks.

8. Tabular statement No. 2 gives separately the details of infectious diseases on vessels in the harbour or docks. The clothing and bedding of the crews of those vessels aggregating 533 persons were disinfected.

### IV—*Disinfection and Fumigation of Ships*

9. During the year under report 37 vessels were disinfected or fumigated.

10. Of the 37 vessels referred to in the foregoing paragraph, 27 vessels were fumigated by means of the Clayton process. Of this number, 19 were outward bound pilgrim vessels, proceeding to Jeddah, and 8 were fumigated at the request of the owners. In addition to these vessels, the British India Steam Navigation Company fumigated 15 steamers by their own apparatus and by the Port Clayton apparatus which was occasionally lent to them at their request for the purpose.

11. The Port Disinfection Station received every Monday clothing and bedding from various hospitals for disinfection.

Four thousand nine hundred and sixty-three bundles containing clothing and bedding of this kind were disinfected as against 735 bundles during the preceding year.

12. There were no deaths from mephitic gas poisoning while cleansing bilges of ships during the year. There were 610 accidents on board of vessels which were lying in the harbour and docks. Of these 23 proved fatal.

## V—*Red Sea Pilgrim Traffic*

### *(a)—Outward Pilgrim Traffic*

13. In accordance with the orders of the Government of India in force, the outward Pilgrim Traffic of the year under report began on 11th January 1928. Before the pilgrims embarked at Bombay the ships were thoroughly cleansed and freed from rats by means of the Clayton process.

The pilgrims were medically inspected and their bedding and all clothing which was likely to have been exposed to infection was disinfected before they were allowed to embark.

14. During the year under report 10,640 pilgrims left for Jeddah. The names of ships, the number of pilgrims carried by them and the dates on which they left Bombay for Jeddah are given in a tabular statement as under :—

| No. | Name of vessel | Number of pilgrims sailed | Date of departure, 1928 |
|---|---|---|---|
| 1 | S. S. "Tangistan" ... ... | 102 | 11th January. |
| 2 | S. S. "Zaya..i" ... ... | 88 | 21st ,, |
| 3 | S. S. "Alavi" ... ... | 642 | 7th February. |
| 4 | S. S "Jehangir" ... ... | 381 | 19th ,, |
| 5 | S. S. "Sultania" ... ... | 563 | 22nd ,, |
| 6 | S. S. "Englestan" ... ... | 419 | 8th March. |
| 7 | S. S. "Zayani" ... ... | 234 | 16th ,, |
| 8 | S. S. "Khosrou" ... ... | 797 | 25th ,, |
| 9 | S. S. "Jehangir" ... ... | 460 | 2nd April. |
| 10 | S. S. "Sultania" ... ... | 997 | 6th ,, |
| 11 | S. S. "Arabestan" ... ... | 1,201 | 6th ,, |
| 12 | S. S. "Dara" ... ... | 986 | 11th ,, |
| 13 | S. S. "Englestan" ... ... | 1,055 | 15th ,, |
| 14 | S. S. "Shuja" ... ... | 455 | 17th ,, |
| 15 | S. S. "Alavi" ... ... | 550 | 26th ,, |
| 16 | S. S. "Zayani" ... ... | 415 | 26th ,, |
| 17 | S. S. "Sultania" ... ... | 145 | 6th May. |
| 18 | S. S. "Akbar" ... ... | 599 | 7th ,, |
| 19 | S. S. "Englestan" ... ... | 551 | 8th ,, |
| | Total ... | 10,640 | |

15. Nine thousand eight hundred and fifty-six intending pilgrims were vaccinated before starting by a special vaccinating staff placed at the disposal of the Police Commissioner by the Municipality. No one was inoculated for cholera during the year.

*(b)—Inward Pilgrim Traffic*

16. During the year under report 7,340 pilgrims arrived from Jeddah in 14 vessels as tabulated in statement No. 3 which is appended to this report.

VI.—*Sanitary State of Harbour and the Foreshore*

17. The sanitary state of the harbour and the various bunders and docks was generally good.

VII—*General*

18. The undersigned was in charge of the Port Health Department during the year under report, except in the month of October when he was on leave and Lt. Otto, I.M.D., acted as Port Health Officer.

19. The members of the Medical, Clerical and Sanitary Police staff performed their duties satisfactorily.

W. M. HOUSTON,
M.B., D.P.H.,
Lieut.-Colonel, I.M.S.,
Health Officer of the Port.

Bombay Port Health Office,
New Custom House,
Dated 1st/2nd March 1929.

# TABLE NO. 1

*Statement showing the summary of the shipping of the Bombay Port and work done in connection therewith for the year ending 31st December 1928*

| Vessel including Country Craft | No. of Vessels inspected | No. of persons inspected | No. of Asiatic and African crew and 3rd Class or Deck passengers disinfected | No. of Vessels | | No. of persons vaccinated for small-pox and inoculated for cholera | |
|---|---|---|---|---|---|---|---|
| | | | | Disinfected | Fumigated | Vaccinated | Inoculated |
| Entered ... ... ... | 164 | 39,608 | 356 | 6 | ... | ... | ... |
| Left ... ... ... | 621 | 131,010 | 55,054 | ... | 21 | 9,856 | ... |
| In harbour during the year ... | 7 | 533 | 533 | 4 | 6 | ... | ... |
| Total ... | 792 | 171,151 | 55,943 | 10 | 27 | 9,856 | ... |
| Total for 1927 ... | 734 | 178,593 | 79,369 | 33 | 27 | 19,466 | 2,894 |

| Vessel including Country craft | Diseases and cases of each | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | Plague | Cholera | Small-pox | Measles | Chicken-pox | Jigger | Influenza | Acute Pneumonia | Leprosy | Mumps | Scarlatina |
| Entered ... ... ... | ... | ... | 2 | 41 | 4 | ... | 12 | ... | 2 | ... | 1 |
| Left ... ... ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| In harbour during the year ... | ... | ... | 4 | ... | 3 | ... | ... | ... | ... | ... | ... |
| Total ... | ... | ... | 6 | 41 | 7 | ... | 12 | ... | 2 | ... | 1 |
| Total for 1927 ... | ... | 8 | 15 | 8 | 11 | 1 | 1 | 9 | 1 | 2 | ... |

## TABLE No. 2

*Statement showing the number of steamships, square-rigged vessels and Indian Crafts which became infected while lying in the Port of Bombay during the year 1928*

| Months | No. of persons who were infected with infectious diseases in Docks and Bunders | | | Total number of infected vessels. | Total number of infectious diseases in the Bombay Harbour. | | | | | | | | No. of crew disinfected |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Plague | Cholera | Influenza | | Plague | Cholera | Small-pox | Measles | Chicken-pox | Scarlatina | Mumps | Leprosy | |
| January ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| February ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| March ... | ... | ... | ... | 2 | ... | ... | 1 | ... | 1 | ... | ... | ... | 161 |
| April ... | ... | ... | ... | 4 | ... | ... | 2 | ... | 2 | ... | ... | ... | 324 |
| May ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| June ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| July ... | ... | ... | ... | 1 | ... | ... | 1 | ... | ... | ... | ... | ... | 48 |
| August ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| September ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| October ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| November ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| December ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| Total ... | ... | ... | .. | 7 | ... | ... | 4 | ... | 3 | ... | ... | ... | 533 |
| Total for 1927 ... | ... | ... | ... | 12 | .. | ... | 4 | 2 | 5 | ... | 1 | ... | 310 |

## TABLE No. 3

*Statement showing the number of pilgrims who arrived in Bombay from Jeddah by Vessels during the year 1928*

| No. | Name of Ship | Date of arrival 1928 | Number of crews inspected | Number of pilgrims inspected | Number of deaths during the voyage | Number of cases of infectious diseases on Board | | Remarks |
|---|---|---|---|---|---|---|---|---|
| | | | | | | On arrival | During voyage | |
| 1 | S.S. "Akbar" ... | 16th June ... | 100 | 1,503 | 5 | ... | ... | |
| 2 | S.S. "Alavi" ... | 18th ,, ... | 98 | 1,165 | 10 | ... | ... | |
| 3 | S.S. "Zayani" ... | 20th ,, ... | 92 | 994 | 11 | ... | ... | |
| 4 | S.S. "Englestan" .. | 23nd ,, ... | 112 | 1,029 | 13 | ... | ... | |
| 5 | S.S. "Arabestan" ... | 26th ,, ... | 86 | 475 | 9 | ... | ... | |
| 6 | S.S. "Dara" ... | 28th ,, ... | 117 | 336 | 14 | ... | ... | |
| 7 | S.S. "Homayun" ... | 15th July ... | 94 | 190 | 10 | ... | ... | |
| 8 | S.S. "Sultania" ... | 22nd ,, ... | 105 | 369 | 16 | ... | ... | |
| 9 | S.S. "Khosrou" ... | 28th ,, ... | 99 | 338 | 1 | ... | ... | |
| 10 | S.S. "Sarvistan" ... | 30th ,, ... | 105 | 391 | 1 | ... | ... | |
| 11 | S.S. "Jehangir" ... | 5th August ... | 117 | 210 | ... | ... | ... | |
| 12 | S.S. "Alavi" ... | 21st ,, ... | 96 | 231 | 8 | ... | ... | |
| 13 | S.S. "Zayani" ... | 24th ,, ... | 88 | 126 | 3 | ... | ... | |
| 14 | S.S. "Jehangir" ... | 14th September... | 92 | 313 | ... | ... | ... | |
| | | Total ... | 1,401 | 7,340 | 101 | ... | ... | |

## APPENDIX I (*b*).

### ANNUAL REPORT OF THE HEALTH OFFICER OF THE PORT, KARACHI, FOR THE YEAR ENDING 31ST DECEMBER 1928.

### I.—*Outgoing Vessels.*

Three hundred and ninety-four steamers outward bound, for Ports beyond India, were inspected and granted Bills of Health during the year under report.

Of this number, 201 steamers were proceeding to Aden, the Red Sea Ports and Europe, and 193 to other Ports out of India including the Persian Gulf.

In addition to the above, 17 Pilgrim Ships from Jeddah bound for Bombay, made a passing call at Karachi to land pilgrims booked for this Port. The Bills of Health of these ships were endorsed and pratiques were granted to them after medical inspection of their passengers and crews.

Three hundred and fifty-one country crafts sailing for Ports beyond India were also granted Bills of Health after medical inspection.

In accordance with the Port Health Regulations in force, the Asiatic and African crews, deck and third class passengers, of all steamers and country crafts proceeding to Ports out of India were medically inspected and their clothing, bedding and other articles disinfected at the Port Health Disinfection Station, Keamari, prior to their departure from the Port of Karachi.

### II.—*Incoming Vessels.*

During the year under report 53 steamers arrived in the Harbour in quarantine, these ships were medically inspected on their arrival and pratiques were granted to them.

Of these 53 steamers, 34 arrived from East African Ports, 12 Pilgrims Ships from Jeddah *vid* Aden and the remaining 7 from various other Ports.

One country craft arrived here in quarantine from East African Ports, it was also medically inspected on its arrival and pratique was granted to it.

### III.—*Synopsis of Medical Inspection and Disinfection performed during the year under report.*

The following tabular statement shows the number of vessels, crews and passengers inspected :—

| | Vessels. | | | Crews and Passengers | | |
|---|---|---|---|---|---|---|
| | Steamers. | Country Boats. | Total. | Of steamers. | Of country boats. | Total. |
| Incoming ... | 53 | 1 | 54 | 19,464 | 12 | 19,476 |
| Outgoing ... | 394 | 351 | 745 | 65,009 | 4,042 | 69,051 |
| | | | | | Total ... | 88,527 |

Of these 88,527 persons (crews and passengers) who were medically inspected on their arrival at, or departure from, the Port of Karachi 59,106 persons (crews and passengers) also had their clothing, bedding and other articles disinfected.

IV.—*Miscellaneous Disinfection.*

On some occasions during the year under report clothing, bedding, etc., sent from Customs Department and private individuals were duly disinfected by steam in the "Equifex Steam Disinfectors."

V.—*Plague.*

No case of this disease occurred on incoming or outgoing vessels during the year under report.

VI.—*Cholera.*

No case of this disease occurred during the year under report on either incoming or outgoing vessels.

VII.—*Leprosy.*

The S.S. "Varsova," onward bound for Bombay, arrived here from Basrah on the 26th January 1928, and reported a case of leprosy amongst the Indian Troops. The patient was duly isolated on board during the voyage and was under the care of an I.M.D. Officer. A telegram was sent to the Port Health Officer, Bombay, as the port of destination of this patient was Bombay.

VIII.—*Small-pox.*

During the year under report 4 cases of small-pox were removed from the below mentioned steamers to the Epidemic Diseases Hospital, Karachi, for treatment :—

(*a*) One saloon waiter from the S.S. "City of Cairo" on 19th February 1928. The ship arrived here from Bombay on the 11th February 1928.

(*b*) One saloon waiter from the M.V. "Dumana" on 5th March 1928. The ship arrived here from Bombay on the 4th March 1928.

(*c*) One male pilgrim from the Pilgrim Ship "Zayani" on 29th April 1928. The ship arrived here from Bombay on the 29th April 1928.

(*d*) One fireman from the S.S. "Streefkerk" on 10th July 1928. The ship arrived here from Bombay on the 10th July 1928.

The following is a brief account of the abovementioned cases:—

(*a*) The patient, a saloon waiter of the S.S. "City of Cairo," developed small-pox rash on 19th February 1928, while the ship was in Karachi Harbour. The ship had arrived at this port from Bombay on the 11th February 1928. Apparently the patient must have contracted the disease at Bombay and must have been in incubation period when the ship arrived here. The patient

was removed to the Epidemic Diseases Hospital, Karachi. The crews' quarters on the ship were thoroughly washed and disinfected. The bedding, clothing, etc., of the entire crew were also disinfected by steam under pressure on shore, at the Port Health Disinfection Station. Vaccination was offered to the crew and those willing were vaccinated. The ship sailed hence for Marseilles and Liverpool *vid* Bombay on the 27th February 1928 and no further cases occurred on board till the time of her sailing from this port.

(*b*) The M.V. "Dumana" arrived here from Bombay on 4th March 1928. On the fifth instant a saloon waiter developed "small-pox" rash. The patient was immediately removed to the Epidemic Diseases Hospital, Karachi, for treatment. This patient also it appears must have been in the incubation stage of the disease at the time of leaving Bombay. Crews' quarters were thoroughly washed and disinfected. Bedding, clothing, etc., of the entire Asiatic crew were disinfected on shore, at the Port Health Disinfection Station, Keamari, by steam under pressure. Vaccination was offered and those willing were vaccinated. No further cases of small-pox occurred on board till the sailing of the ship from this Port on 8th March 1928.

(*c*) The Pilgrim Ship "Zayani" from Bombay onward bound for Jeddah called here on the 29th instant for additional pilgrims. On arrival, her Medical Officer reported a case of small-pox amongst the male pilgrims on board from Bombay. The patient was isolated in the Ship's Hospital by the Ship's Surgeon. The patient was removed to the Epidemic Diseases Hospital, Karachi, for treatment and precautionary measures were carried out on board. The ship sailed hence for Jeddah on the same day, after embarking additional pilgrims on board at this Port.

(*d*) The S.S. "Streefkerk" from Bombay onward bound for Antwerp arrived here on the 16th July 1928. The Master on arrival reported that one of his fireman (Asiatic) was ill. On medical inspection he was found to be suffering from small-pox. The patient was removed immediately to the Epidemic Diseases Hospital at Karachi for treatment. Disinfection of the crews' quarters was carried out and the bedding, clothing, etc., of the entire crew was disinfected by steam under pressure at the Port Health Disinfection Station. The entire crew was vaccinated. No further cases occurred on board until the date of her sailing from this Port on 14th July 1928 for Antwerp. It is apparent that this patient must have also contracted the disease at Bombay.

### IX.—*Chicken-pox.*

Seven cases of chicken-pox were sent from the below mentioned ships to the Epidemic Diseases Hospital, Karachi, for treatment. Details as follows :—

(1) S.S. "Goalpara" arrived here from Bombay on 27th January 1928, one case of chicken-pox was removed to hospital on the 30th January 1928.

(2) S.S. "Varela" arrived here from Bombay on 3rd March 1928, one case of chicken-pox was removed to Hospital on the 4th March 1928.

(3) S.S. "Sommelsdyk" arrived here from Bombay on 3rd March 1928, one case of chicken-pox was removed to hospital on the 9th March 1928.

(4) S.S. "Alavi" arrived here from Bombay on 13th March 1928, one case of chicken-pox was removed to hospital on the 16th March 1928.

(5) S.S. "Vita" arrived here from Bombay on the 4th April 1928, one case of chicken-pox was removed to hospital on the same day.

(6) Pilgrim Ship "Dara" arrived here from Bombay on 13th April 1928, one case of chicken-pox was removed to hospital on the same day.

(7) S.S. "Vasna" arrived here from Basrah on the 3rd May 1928, one case of chicken-pox was removed to hospital on the same day.

The necessary precautionary measures, such as the disinfection of infected parts of these ships, bedding, clothing, etc., of passengers and crews were duly carried out in each of the abovementioned cases.

Two cases of chicken-pox occurred on board the Port Trust Steam Tug "Sydney Thubron," one on the 27th February 1928 and the other on the 15th March 1928. The cases were reported to this office by the Port Trust Medical Officer who treated them on shore. The infected parts of the Tug were disinfected by this department and the bedding, clothing, etc., of the crew were disinfected by steam under pressure at the Port Health Disinfection Station, Keamari.

## X.—*Acute-Pneumonia.*

At the time of disinfection and medical inspection at the Port Health Disinfection Station of deck passengers booked for the undermentioned two steamers, the following cases of pneumonia were detected and they were accordingly not allowed to embark:—

(1) S.S. "Varela" on the 12th February 1928 a male child.

(2) S.S. "Bandra" on the 8th April 1928 a female child.

## XI.—*Measles.*

During the year under report no cases of this disease were reported or detected amongst incoming or outgoing passengers and crews.

## XII.—*Mumps.*

One case of mumps occurred during the year under report amongst troops on the H.T. "Somersetshire" and was taken charge of by the Military Authorities.

XIII.—*Yellow fever, Jigger, Sleeping sickness, Scarlet fever, Cerebro-spinal Meningitis and Influenza.*

No cases of these diseases were detected during the year.

XIV.—*Non-Notifiable Diseases.*

No cases were sent to Civil Hospital, Karachi, for treatment by this department.

XV.—*Deaths from Non-Notifiable Diseases.*

(1) S.S. "Varela" arrived here on the 25th April 1928 from the Persian Gulf and the Commander of the vessel reported that one male deck passenger died during the voyage. The Ship's Surgeon certified that the death was due to "general debility."

(2) S.S. "Vasna" arrived here on 30th April 1928 from the Persian Gulf and the Commander reported the death of one male deck passenger during the voyage. The Ship's Surgeon certified that the death was due to "Asthenia and Collapse" due to Malignant Disease.

XVI.—*Red Sea Pilgrim Traffic.*

*A.—Outward Pilgrim Traffic.*

Outward pilgrim season during the year under report commenced on 15th January. Seventeen steamers carrying 10,130 pilgrims sailed from this Port.

Immediately before their embarkation, the pilgrims were medically inspected and their clothing, bedding, etc., disinfected at the Port Health Disinfection Station, Keamari.

The names of the steamers, the number of pilgrims carried by them and the dates on which they sailed from Karachi for Jeddah are given below in tabular form :—

| Name of ship. | Date of sailing. | Number of pilgrims. |
|---|---|---|
| S.S. "Tangistan" ... ... | 15th January 1928 ... | 815 |
| S.S. "Zayani" ... ... | 25th January 1928 ... | 844 |
| S.S. "Alavi" ... ... | 11th February 1928 ... | 489 |
| S.S. "Jehangir" ... ... | 22nd February 1928 ... | 186 |
| S.S. "Sultania" ... ... | 26th February 1928 ... | 746 |
| S.S. "Englestan" ... ... | 12th March 1928 ... | 612 |
| S.S. "Zayani" ... ... | 20th March 1928 ... | 572 |
| S.S. "Khosrou" ... ... | 28th March 1928 ... | 716 |
| S.S. "Jehangir" ... ... | 5th April 1928 ... | 704 |
| S.S. "Sultania" ... ... | 9th April 1928 ... | 530 |
| S.S. "Dara" ... ... | 14th April 1928 ... | 458 |
| S.S. "Shuja" ... ... | 20th April 1928 ... | 965 |
| S.S. "Alavi" ... ... | 29th April 1928 ... | 625 |
| S.S. "Zayani" ... ... | 29th April 1928 ... | 260 |
| S.S. "Tangistan" ... ... | 9th May 1928 ... | 836 |
| S.S. "Sultania" ... ... | 10th May 1928 ... | 252 |
| S.S. "Akbar" ... ... | 10th May 1928 ... | 520 |
| | Total ... | 10,130 |

Out of the abovenamed 17 steamers, one steamer namely "Tangistan" was fumigated and freed from rats by means of Clayton Apparatus here, as the vessel commenced its voyage from this Port.

At the time of disinfection and medical inspection on shore, of the pilgrims booked for Pilgrim Ship "Khosrou" on the 28th March 1928, one male pilgrim was found to be suffering from Erysipelas. He was shown to the Ship's Surgeon, but as he declined to have him on board, the pilgrim was not allowed to embark on the ship and was sent to hospital on shore for treatment.

The S.S. "Dara" onward bound for Jeddah called at Karachi on the 13th April 1928, with pilgrims on board from Bombay. One case of chicken-pox was detected amongst the pilgrims from Bombay on board at the time of medical inspection on arrival. The patient was removed to the Epidemic Diseases Hospital, Karachi, for treatment. Bedding, clothing of the contacts and infected parts of the ship were duly disinfected.

At the time of disinfection and medical inspection at the Port Health Disinfection Station on 29th April 1928, of the pilgrims booked for Pilgrim Ship "Zayani," one pilgrim was found to be suffering from small-pox. He was therefore not allowed to embark on board and was sent to the Epidemic Diseases Hospital, Karachi, for treatment.

*B.—Inward Pilgrim Traffic.*

The following table shows the number of pilgrims who returned to Karachi from Jeddah, the names of ships by which they travelled and other particulars :—

| No. | Name of steamers. | Date of arrival. | Number of crew. | Number of pilgrims for Karachi. | Number of deaths during voyage or in harbour. | Number of cases of infectious disease during voyage or on arrival. |
|---|---|---|---|---|---|---|
| 1 | S.S. "Sultania" ... | 18th June 1928 ... | 106 | 1,512 | 10 | *Nil.* |
| 2 | S.S. "Khosrou" ... | 19th June 1928 ... | 100 | 1,498 | 16 | *Nil.* |
| 3 | S.S. "Shuja" ... | 21st June 1928 ... | 99 | 1,422 | 12 | *Nil.* |
| 4 | S.S. "Arabestan" ... | 23rd June 1928 ... | 89 | 1,040 | 8 | *Nil* |
| 5 | S.S. "Dara" ... | 25th June 1928 ... | 100 | 1,080 | 14 | *Nil.* |
| 6 | S.S. "Homayun" ... | 12th July 1928 ... | 94 | 614 | 10 | *Nil.* |
| 7 | S.S. "Sultania" ... | 18th July 1928 ... | 105 | 1,187 | 15 | *Nil.* |
| 8 | S.S. "Khosrou" ... | 26th July 1928 ... | 101 | 684 | 1 | *Nil.* |
| 9 | S.S. "Sarvistan" ... | 27th July 1928 ... | ... | 375 | 1 | *Nil.* |
| 10 | S.S. "Jehangir" ... | 2nd August 1928 ... | 119 | 323 | *Nil.* | *Nil.* |
| 11 | S.S. "Alavi" ... | 18th August 1928 . | 96 | 266 | 8 | *Nil.* |
| 12 | S.S. "Zayani" ... | 20th August 1928 . | 88 | 442 | 3 | *Nil.* |
| | | Total ... | 1,097 | 10,443 | 98 | ..... |

In all 10,443 pilgrims returned to Karachi during the pilgrim season of 1928.

Ninety-eight deaths as shown in tabular Form B occurred on the returning Pilgrim Ships. Deaths were mostly due to senile debility inanition and diarrhœa. Forty-seven pilgrims were in ship's hospital on arrival at Karachi, *i.e.*, 8 on Sultania, 2 on Khosrou, 6 on Shuja, 5 on Dara, 2 on Homayun, 9 on Sultania, 5 on Khosrou, 4 on Sarvistan, 3 on Alavi and 3 on Zayani suffering from general debility, diarrhœa and inanition. Out of these 47 pilgrims, 15 were sent to the Civil Hospital, Karachi and 3 were sent to the Lady Dufferin Hospital, Karachi, for treatment, while the rest declined to go to hospital and proceeded to their homes with their friends or relatives.

XVII.—*Clayton Apparatus.*

Two steamers were fumigated during the year under report.

XVIII.—*Sanitary State of Harbour.*

The sanitary state of harbour was satisfactory.

XIX.—*Plague, Cholera, Small-pox, Measles, Chicken-pox, Influenza and Acute-Pneumonia in the City of Karachi.*

During the year under report there occurred no deaths from plague or cholera, 2 from small-pox, nil from chicken-pox, 153 from measles, 1 from influenza and 1,378 from Acute-Pneumonia in the Port and City of Karachi.

*Staff.*

Owing to an enormous increase in the clerical work of this office, the appointment of a second clerk was created, *vide* Government Resolution General Department, No. 5551, dated 23rd December 1927, and Mr. J. G. Cordeiro was transferred from the office of the Chemical Analyser for Sind, Karachi, to fill up the newly created post. He joined his duties at this office on the forenoon of 6th February 1928.

The Medical and Clerical staff, the Steam Launch and Clayton Apparatus Establishments and menial staff performed their duties to my entire satisfaction during the year under report.

B. F. KHAMBATTA,
M.B., B.S., D.P.H.,
Health Officer of the Port, Karachi.

Port Health Office, Keamari,
Karachi, dated 8th March 1929.

# APPENDIX I (*c*)

## ANNUAL REPORT OF THE HEALTH OFFICER OF THE PORT OF ADEN FOR THE YEAR 1928

### I—*General Remarks*

One thousand six hundred and seventy-five vessels and rigged vessels were granted Bills of Health during the year against one thousand six hundred and sixty-five for the year 1927.

Of the above number, 1,188 were sailing under the British flag and 487 under foreign flags.

The accompanying table " A " gives a list of vessels on board of which infectious diseases existed on arrival. In the case of these vessels, all sanitary precautions were taken to prevent the spread of the disease.

The following cases of infectious diseases were landed from shipping :—

| | | | | |
|---|---|---|---|---|
| Small-pox | ... | ... | ... | 1 |
| Chicken-pox | ... | ... | ... | 2 |
| Jigger | ... | ... | ... | 2 |

### II—*Pilgrim Traffic*

Six ships carrying pilgrims passed through the Port of Aden during the year. All were medically examined but they were not granted pratique.

| Year | Number of ships | Number of Pilgrims | Number of deaths |
|---|---|---|---|
| 1928 | 6 | 6,351 | ... |

### III—*Table " A "*

The following is the list of vessels on board of which cases of infectious diseases existed on arrival at this Port during the year :—

| Date | Name of Ships | Nationality | From | To | No. of cases | Remarks |
|---|---|---|---|---|---|---|
| 7th January 1928. | " Ranchi " ... | British . | London ... | Bombay ... | 1 C.P. ... | Isolated O. B. |
| 8th January 1928. | " Karamata " ... | Dutch ... | Sabang ... | Jeddah ... | 5 Infl. ... | Do. |
| 25th April 1928 ... | " Massaua " ... | Italian... | Zanzibar . | Mombassa | 2 J.R. ... | Landed. |
| 21st June 1928 ... | " Springfontein ". | Dutch ... | Jeddah ... | Muccala... | 1 S.P. ... | Do. |
| 5th October 1928. | " Malakuta " ... | British . | Suez ... | Calcutta... | 1 C.P. ... | Do. |
| 9th November 1928. | " Chenonceaux " . | French . | Marseille . | China ... | 1 C.P. ... | Do. |
| 17th November 1928. | " Mantua " ... | British . | London ... | Do. .. | 13 Mls. ... | Isolated O. B. |
| Do. ... | " Razmak " ... | Do. ... | Marseille . | Bombay... | 2 Mls. ... | Do. |

*N.B.*—S.P. stands for Small-pox, C.P. stands for Chicken-pox, J.R. stands for Jigger, Mls. stands for Measles, and Infl. stands for Influenza.

## IV

The following are the names and other information regarding the pilgrim ships which passed through Aden during the year under report :—

| Date | Name of Ship | Nationality | From | To | Number of | |
|---|---|---|---|---|---|---|
| | | | | | Pilgrims | Infectious cases |
| 8th January 1928. | "Karamata" ... | Dutch ... | Sabang ... | Jeddah ... | 1,569 | ..... |
| 5th July 1928 ... | "Homayun" ... | British ... | Jeddah ... | Bombay ... | 808 | ..... |
| 10th July 1928 ... | "Sultania" ... | Do. ... | Do. ... | Do. ... | 1,569 | ..... |
| 17th July 1928 ... | "Khosrou" ... | Do. ... | Do. ... | Karachi ... | 992 | ..... |
| 26th July 1928 ... | "Jehangir" ... | Do. ... | Do. ... | Bombay ... | 884 | ..... |
| 11th August 1928. | "Alavi" ... | Do. ... | Do. ... | Do. ... | 579 | ..... |

### V—*Establishment*

Lieutenant-Colonel E. S. Phipson, D.S.O., M.D., M.R.C.P., D.P.H., D.T.M. & H., I.M.S., Health Officer of the Port of Aden from 1st January to 31st December 1928 inclusive.

### VI—*Office Establishment*

Mr. E. Naser, Head Clerk to the Health Officer of the Port from 1st January to 4th July 1928 inclusive. On leave from 5th July to 19th October 1928 inclusive. Resumed charge of the office from 20th October to 31st December 1928 inclusive.

Peon Omer Bubaker from 1st January to 30th April 1928. On leave from 1st May to 31st August 1928. Duty from 1st September to 31st December 1928.

Peon Abdulla Hussain from 1st January to 31st December 1928 inclusive.

### VII—*Launch Establishment*

Driver Hussain Noman from 1st January 1928 to 31st December 1928.

Stoker Abdo Noman from 1st January to 31st on leave. Duty from 1st February to 31st December 1928 inclusive.

Succani Mohamed Magon from 1st January to 31st December 1928.

Lascar Mohamed Elmi from 1st January to 31st December 1928.

### VIII—*Disinfection Stove*

A fireman was retained for the care of the Disinfecting Stove on Flint Island during the year in accordance with Government Order, General Department, No. 4607, dated 18th April 1920.

## IX—*The Plague Epidemic of 1928*

The Port of Aden was visited during the year with an epidemic of bubonic plague. The first cases were recognised on January 9th, 1928, and it is believed that infection was communicated in the holds or bunkers of a plague-infected ship, as the disease first broke out among coal and cargo coolies. It has not been possible to identify the ship as no ships known or even suspected to be plague-infected have called at Aden since 1926. The port was declared infected on January 10th and the prescribed measures were put into operation as soon as possible.

On the discovery of the nature of the outbreak, the following precautions were taken :—(1) Evacuation of the affected houses, and those of probable and possible contacts; (2) Removal of the sick to the Maala Infectious Diseases Hospital for treatment; (3) Segregation of the immediate contacts of the cases in an Observation Ward of the Infectious Diseases Hospital; (4) Segregation of as many as possible of the remote contacts on one of the Quarantine Islands, where they remained under medical supervision; (5) Disinfection of the evacuated houses with sludge oil, after thorough cleansing and incineration of rubbish; (6) Institution of continuous house to house inspection of the remaining coolie lines of the rest of the bazaar; (7) Institution of rat-campaign; and (8) Provision of facilities for anti-plague inoculation.

The object of some of these measures was to endeavour to circumscribe the epidemic within definite limits, and thus prevent its spread beyond its original focus, as from the earliest stages of the outbreak there had been no evidence of a preliminary rat-epizootic, and the chances of success did not therefore seem too remote. The measures proved however to be unavailing and the infection gradually spread until finally all the four Divisions of Aden, Steamer Point, Maala, Crater and Sheikh-Othman, were affected to a greater or lesser extent.

When it became evident that local medical personnel would be insufficient to deal with the outbreak, Dr. Chitre of the Haffkine Institute and Mr. Mallet, Expert Rat Examiner, were deputed from Bombay at the request of the Plague Committee, and the former was placed in charge of the anti-plague operations, and other medical personnel were brought from India as required. The epidemic reached its maximum in March and began to decline in April. The following is the summary of the epidemic of plague in Aden during the year under Report :—

(1) Total number of attacks 1,494,
(2) Total number of deaths 1,117,
(3) Mean case—mortality 74·2 per cent. (approximate),
(4) Total number of inoculations done 31,067,
(5) Total number of rats caught 3,438, and
(6) Infected rats caught 117.

The port was declared free on June 2nd, 1928, and all restrictions as regards passengers, cargo and shipping ceased from that date. The systematic baiting and trapping of rats still continues.

As the history of plague in Aden shews that in every previous epidemic as well as the epidemic under reference, the first focus of infection has always been among coal and cargo coolies, a scheme is under consideration by which such coolies would be housed separately in special barracks away from the Tawahi bazaar, where most of them live at present under very insanitary conditions; and if the scheme can be brought to fruition it may be anticipated that, should an epidemic recur, it will be more easily controlled and circumscribed. The scheme presents peculiar difficulties, social, economic and financial, but the indications of the previous epidemics are so clear that a serious attempt is being made to devise a suitable scheme for the segregation of that part of the population which local experience has shewn to be its most dangerous element.

As a special measure of protection to the community during the epidemic period a system was instituted similar to that which obtains in Bombay and other large cities in India, of checking the causes of mortality by medical enquiries instituted immediately after death, in all cases in which no medical certificate is forthcoming. Such uncertified deaths form a majority of all deaths, and the information which *post-mortem* enquiries may be expected to elicit, while not providing an accurate basis for statistics or for epidemiological purposes, is at least a considerable advance on the usual system by which the statistics are compiled from information given by relatives of the deceased, mostly illiterate persons, when seeking a burial pass. It is proposed to continue this system as a permanent measure.

*Port restrictions.*—Ships calling at Aden and lying in the stream worked in quarantine, and communication with the shore was limited to the minimum compatible with the ship's urgent requirements; all unnecessary movements between ship and shore and *vice-versa* being prohibited. Bills of Health and the usual certificates were issued and all passengers embarking at Aden were examined, and their effects, where considered necessary, disinfected. Crews and passengers of all Dhows were inspected and disinfected immediately before departure, and all bumboat traffic was stopped. A special temporary shore disinfection station was built and equipped for dealing with the clothing and effects of deck passengers leaving Aden, to avoid the inconvenience of carrying out the work on Flint Island where the Port Disinfection Station is located, and also for the disinfection of cargo and coal coolies nearly all of whom lived in an infected area (Tawahi Bazaar). The introduction of disinfection of all such coolies before going aboard was attended with great initial difficulties, but these were successfully overcome, and the system eventually worked quite smoothly, and probably assisted materially in preventing the spread of infection to ships working in harbour.

Disinfection of merchandise coming under the category of "Plague-suspicious" which had lain in an infected area was required to be carried out before being released for shipment. The list of plague suspicious cargo was based on that recognised by the Eastern Bureau, Health Section, League of Nations, Singapore, and adapted to meet local requirements. Disinfection was carried out in a special lighter connected with a Clayton apparatus.

It should perhaps be placed on record, that certain ports in frequent communication with Aden, notably Djibouti in French Somaliland Massaua in the Italian Colony of Eritrea, and Port Sudan applied restrictions on traffic from Aden very considerably in excess of what is permissible under the Paris Sanitary Convention, such for example as the detention in quarantine of ships taking Aden cargo and passengers up to a period of six days after leaving the port of Aden.

The restrictions which may and which may not be applied to what are technically "Healthy" ships arriving from an infected port are clearly defined in Articles 21 and 24 of the Convention and the arbitrary application of restrictions in excess of these not only needlessly damages the trade of the port of origin but is a negation of those principles of equality, reciprocity and mutual confidence which are the foundation of an international of agreement this sort.

That the port restrictions were on the whole adequate and effective is evidenced by the fact that, so far as is known, only one case of plague, a deck passenger evidently in the incubation stage of the disease at the time of embarkation, was reported as having occurred on a ship leaving Aden (The P. & O. ss. "Nankin"). Perim Island was infected, presumably from Aden, either by sea or by land, but the outbreak was rapidly brought under control. There is no evidence that any other port or ship was infected from Aden. It is of importance to record that the two principal ports in direct communication with Aden, *i.e.*, Berbera and Djibouti remained completely free from infection, no cases having been reported from either port.

In view of the constant traffic between Aden and those ports, usually four times a week, their immunity from infection from Aden may be considered as satisfactory evidence that the port restrictions in Aden were effectively applied.

E. S. PHIPSON,
M.D. (Lond.), M.R.C.P., D.P.H.,
Lieut.-Colonel, I.M.S.,
Health Officer of the Port, Aden.

# APPENDIX II

The following table shows year of completion of drainage or water-works and a comparison of mean death-rate in the towns concerned for periods preceding and subsequent to installation.

In column 7 is given for comparison the death-rate of the adjoining rural circle for the year under report:—

| District. | Town. | Date of completion of works of | | Mean death-rate (a) | | Death-rate in adjoining rural circle (a). | Mean death-rate from cholera *plus* dysentery and diarrhœa. | | Remarks |
|---|---|---|---|---|---|---|---|---|---|
| | | Drainage. | Water supply. | For years preceding the installation. | For the years (succeeding installation) ending 1927. | | For years preceding works. | For the years (following the works) ending 1926. | |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| Sholapur ... | Sholapur ... | ... | 1917 | 61·01 | 33·97 | 29·70 | 14·05 | 2·05 | |
| Do. ... | Pandharpur. | ... | 1911 | 49·98 | 56·39 | 29·59 | 19·60 | 7·76 | |
| Nasik ... | Nasik ... | ... | 1913 | 52·73 | 34·1 | 33·10 | 13·33 | 1·90 | |
| Bijapur ... | Bijapur ... | ... | 1913 | 30·08 | 23·47 | 24·97 | 1·77 | 1·90 | |
| Poona ... | Lonavla ... | ... | 1915 | 13·68 | 25·52 | 20·22 | 1·12 | 1·55 | |
| Do. ... | Poona City*. | 1916 | ... | 36·47 | 40·53 | 17·26 | 10·18 | 2·61 | * Chlorination of water supply began in 1916. |
| Satara ... | Karad ... | ... | 1916 | 18·58 | 16·58 | 27·01 | 7·10 | 1·05 | |
| Sholapur ... | Barsi ... | ... | 1917 | 44·41 | 38·11 | 38·37 | 5·83 | 3·26 | |
| Nasik ... | Trimbak ... | ... | 1921 | 43·88 | 18·12 | 33·10 | 2·35 | 0·88 | |
| Poona ... | Poona Cantonment.† | ... | 1916 | 29·49 | 12·83 | 17·26 | 2·07 | 0·97 | † Change in type of installation. |
| Sukkur ... | Sukkur ... | ... | 1924 | 21·48 | 18·56 | 17·16 | 0·48 | 0·34 | |

(a) Exclusive of Plague and Influenza.

# APPENDIX III

APPENDIX

ANNUAL FORM NO. I.—*Showing the* BIRTHS *registered in the*

| 1 | 2 | 3 | | | 4 | | |
|---|---|---|---|---|---|---|---|
| Number. | Districts. | POPULATION ACCORDING TO CENSUS OF 1921. | | | NUMBER OF BIRTHS REGISTERED. | | |
| | | Male. | Female. | Total. | Male. | Female. | Total. |
| | *Western Registration District.* | | | | | | |
| 1 | East Khándesh .. ... | 545,376 | 529,746 | 1,075,122 | 28,890 | 27,257 | 56,147 |
| 2 | West Khándesh .. ... | 309,511 | 303,201 | 612,712 | 16,645 | 15,982 | 32,627 |
| 3 | Násik .. .. | 418,510 | 406,706 | 825,216 | 21,196 | 20,129 | 41,325 |
| 4 | Thána .. .. | 368,310 | 368,589 | 756,899 | 13,834 | 13,001 | 26,835 |
| 5 | Bombay Suburban .. ... | 87,567 | 63,874 | 151,441 | 1,679 | 1,568 | 3,247 |
| 6 | Kolába ... .. | 279,350 | 283,122 | 562,472 | 12,326 | 11,603 | 23,929 |
| 7 | City of Bombay .. ... | 751,948 | 396,867 | 1,148,815 | 12,269 | 11,334 | 23,623 |
| | *Central Registration District.* | | | | | | |
| 8 | Ahmednagar .. .. | 362,947 | 361,031 | 723,978 | 20,484 | 19,421 | 39,905 |
| 9 | Poona .. .. | 500,601 | 487,080 | 987,681 | 19,670 | 18,365 | 38,035 |
| 10 | Sholápur .. ... | 383,167 | 360,002 | 743,169 | 18,127 | 17,088 | 35,215 |
| 11 | Sátára .. .. | 510,445 | 513,711 | 1,024,156 | 23,622 | 22,501 | 46,123 |
| 12 | Ratnágiri .. .. | 525,085 | 628,895 | 1,153,980 | 22,328 | 21,131 | 43,459 |
| | *Southern Registration District.* | | | | | | |
| 13 | Belgaum .. .. | 484,615 | 465,047 | 949,662 | 20,144 | 19,305 | 39,449 |
| 14 | Dhárwár .. .. | 528,348 | 507,861 | 1,036,209 | 19,888 | 19,118 | 39,006 |
| 15 | Bijápur .. .. | 405,148 | 391,208 | 796,356 | 16,595 | 15,776 | 32,371 |
| 16 | Kánara .. .. | 203,950 | 197,526 | 401,476 | 7,025 | 6,702 | 13,727 |
| | *Gujarát Registration District.* | | | | | | |
| 17 | Surat .. . .. | 337,276 | 336,845 | 674,121 | 14,690 | 13,831 | 28,521 |
| 18 | Broach .. .. | 158,568 | 149,143 | 307,711 | 7,218 | 6,963 | 14,181 |
| 19 | Kaira .. .. | 379,702 | 331,203 | 710,905 | 13,322 | 11,995 | 25,317 |
| 20 | Panch Maháls .. ... | 193,385 | 181,446 | 374,831 | 8,010 | 7,381 | 15,421 |
| 21 | Ahmedabad .. .. | 473,693 | 414,231 | 887,924 | 16,979 | 15,683 | 32,662 |
| | *Sind Registration District.* | | | | | | |
| 22 | Karáchi .. .. | 302,563 | 228,094 | 530,657 | 8,483 | 7,231 | 15,714 |
| 23 | Hyderábad .. .. | 316,834 | 250,415 | 567,249 | 5,856 | 4,685 | 10,541 |
| 24 | Thar and Párkar .. .. | 221,074 | 175,233 | 396,307 | 5,314 | 4,313 | 9,627 |
| 25 | Nawabshah .. .. | 233,826 | 184,826 | 418,652 | 6,596 | 4,755 | 11,351 |
| 26 | Lárkána .. .. | 331,204 | 266,733 | 597,937 | 7,268 | 5,550 | 12,818 |
| 27 | Sukkur .. .. | 281,493 | 227,869 | 509,362 | 7,936 | 6,138 | 14,074 |
| 28 | Upper Sind Frontier ... | 134,321 | 106,293 | 240,614 | 3,615 | 2,682 | 6,297 |
| | Total for the Presidency .. | 10,048,817 | 9,116,797 | 19,165,614 | 380,159 | 351,488 | 731,647 |

III

DISTRICTS *of the* BOMBAY PRESIDENCY *during the year 1928.*

| 5 | | | 6 | 7 | 8 | 9 | | |
|---|---|---|---|---|---|---|---|---|
| RATIO OF BIRTHS PER 1,000 OF POPULATION. | | | Number of males born to every 100 females born. | Excess of Births over Deaths per 1,000 of Population. | Excess of Deaths over Births per 1,000 of Population. | MEAN RATIO OF BIRTHS PER 1,000 DURING PREVIOUS FIVE YEARS. | | |
| Male. | Female. | Total. | | | | Male. | Female. | Total. |
| 26·87 | 25·35 | 52·22 | 105·99 | 20·32 | .. | 24·88 | 23·32 | 48·20 |
| 27·49 | 26·08 | 53·57 | 105·40 | 22·30 | .. | 25·03 | 23·95 | 48·98 |
| 25·69 | 24·39 | 50·08 | 105·30 | 14·48 | .. | 23·62 | 22·01 | 45·63 |
| 18·28 | 17·17 | 35·45 | 106·41 | 11·38 | .. | 16·97 | 15·84 | 32·81 |
| 11·08 | 10·36 | 21·44 | 107·08 | 3·82 | .. | 9·62 | 8·76 | 18·38 |
| 21·91 | 20·03 | 42·54 | 106·23 | 16·38 | .. | 20·24 | 19·13 | 39·37 |
| 10·70 | 9·86 | 20·56 | 108·42 | ..... | 3·03 | 9·26 | 8·85 | 18·12 |
| 28·29 | 22·21 | 50·50 | 105·47 | 15·13 | .. | 25·02 | 23·69 | 48·71 |
| 19·92 | 18·59 | 38·51 | 107·11 | 9·48 | .. | 18·05 | 16·47 | 34·52 |
| 24·39 | 23·99 | 47·38 | 106·08 | 12·67 | .. | 22·07 | 20·81 | 42·88 |
| 23·06 | 21·07 | 45·03 | 104·93 | 8·56 | .. | 20·68 | 19·59 | 40·27 |
| 19·35 | 18·31 | 37·66 | 105·66 | 13·18 | .. | 19·14 | 18·01 | 37·15 |
| 21·31 | 20·33 | 41·54 | 104·35 | 14·12 | .. | 20·84 | 19·90 | 40·74 |
| 19·19 | 18·45 | 37·64 | 104·03 | 8·70 | .. | 18·72 | 17·99 | 36·72 |
| 20·81 | 19·81 | 40·65 | 105·19 | 14·06 | .. | 20·36 | 19·68 | 40·04 |
| 17·50 | 16·60 | 34·10 | 104·82 | 3·13 | .. | 18·00 | 16·84 | 34·84 |
| 21·79 | 20·52 | 42·31 | 106·21 | 13·78 | .. | 20·31 | 19·14 | 39·45 |
| 23·46 | 22·63 | 46·09 | 103·66 | 11·93 | | 23·99 | 22·91 | 46·90 |
| 16·73 | 16·87 | 35·60 | 111·06 | 5·77 | .. | 20·26 | 18·06 | 38·32 |
| 21·45 | 19·69 | 41·14 | 108·93 | 17·60 | .. | 20·95 | 19·70 | 40·65 |
| 19·12 | 17·66 | 36·78 | 108·67 | 5·73 | .. | 20·14 | 18·48 | 38·62 |
| 15·98 | 13·63 | 29·61 | 117·31 | 10·36 | .. | 24·52 | 23·32 | 26·42 |
| 10·32 | 8·26 | 18·58 | 124·99 | 3·86 | .. | 16·95 | 16·66 | 16·80 |
| 13·16 | 10·88 | 24·04 | 120·89 | 7·21 | .. | 22·30 | 22·29 | 22·29 |
| 15·75 | 11·36 | 27·11 | 138·72 | 11·09 | .. | 23·43 | 22·00 | 22·71 |
| 12·16 | 9·28 | 21·44 | 130·95 | 2·68 | .. | 21·90 | 20·62 | 21·26 |
| 15·58 | 13·05 | 27·63 | 129·29 | 14·75 | .. | 28·12 | 27·74 | 27·93 |
| 15·02 | 11·15 | 26·17 | 134·80 | 13·42 | .. | 22·09 | 21·04 | 21·56 |
| 19·83 | 18·34 | 38·17 | 108·15 | 10·89 | .. | 18·09 | 17·26 | 35·95 |

ANNUAL FORM No. II.—*Showing the* BIRTHS *and* DEATHS *registered*

| 1 | 2 | 3 | 4 | 5 | |
|---|---|---|---|---|---|
| Number. | Districts. | Area in square miles. | Average population per square mile. | Population (Census, Male. | Female. |
| | *Western Registration District.* | | | | |
| 1 | East Khándesh ... ... ... | 4,551 | 286 | 545,376 | 529,746 |
| 2 | West Khándesh ... ... ... | 5,438 | 113 | 309,511 | 303,201 |
| 3 | Násik ... ... ... | 5,877 | 140 | 418,510 | 408,706 |
| 4 | Thána ... ... ... | 3,434 | 220 | 388,310 | 368,559 |
| 5 | Bombay Suburban ... ... ... | 142 | 1,066 | 87,567 | 63,874 |
| 6 | Kolába ... ... ... | 2,169 | 259 | 279,350 | 283,123 |
| 7 | Bombay City ... ... ... | 24 | 47,867 | 751,948 | 396,867 |
| | *Central Registration District.* | | | | |
| 8 | Ahmednagar ... ... ... | 6,610 | 109 | 362,947 | 361,031 |
| 9 | Poona ... ... ... | 5,357 | 184 | 500,601 | 487,089 |
| 10 | Sholápur ... ... ... | 4,556 | 163 | 383,167 | 360,002 |
| 11 | Sátára ... ... ... | 4,910 | 209 | 510,445 | 513,711 |
| 12 | Ratnágiri ... ... ... | 3,969 | 289 | 525,085 | 628,895 |
| | *Southern Registration District.* | | | | |
| 13 | Belgaum ... ... ... | 4,611 | 206 | 484,615 | 465,047 |
| 14 | Dhárwár ... ... ... | 4,606 | 225 | 528,348 | 507,861 |
| 15 | Bijápur ... ... ... | 5,707 | 139 | 405,148 | 391,208 |
| 16 | Kánara ... ... ... | 3,946 | 102 | 203,950 | 197,526 |
| | *Gujarát Registration District.* | | | | |
| 17 | Surat ... ... ... | 1,651 | 408 | 337,276 | 336,845 |
| 18 | Broach ... ... ... | 1,468 | 210 | 158,568 | 149,143 |
| 19 | Kaira ... ... ... | 1,596 | 445 | 379,702 | 331,203 |
| 20 | Panch Mahális ... ... ... | 1,666 | 283 | 193,385 | 181,446 |
| 21 | Ahmedabad ... ... ... | 3,824 | 232 | 473,693 | 414,231 |
| | *Sind Registration District.* | | | | |
| 22 | Karáchi ... ... ... | 11,231 | 47 | 302,563 | 228,094 |
| 23 | Hyderabad ... ... ... | 4,417 | 128 | 316,834 | 259,415 |
| 24 | Thar and Párkar ... ... ... | 13,636 | 29 | 221,074 | 175,283 |
| 25 | Nawabshah ... ... ... | 3,889 | 107 | 233,826 | 184,826 |
| 26 | Lárkána ... ... ... | 5,057 | 118 | 331,204 | 266,733 |
| 27 | Sukkur ... ... ... | 5,612 | 91 | 281,493 | 227,869 |
| 28 | Upper Sind Frontier ... ... ... | 2,664 | 90 | 134,321 | 106,293 |
| | Total for the Presidency ... | 122,578 | 126 | 10,048,817 | 9,116,797 |

*in the* DISTRICTS *of the* BOMBAY PRESIDENCY *during the year 1928.*

| | 6 | | 7 | | | 8 |
|---|---|---|---|---|---|---|
| 1921). | BIRTHS. | | NUMBER OF DEATHS REGISTERED. | | | Number of Deaths of males to every 100 deaths of females. |
| Total. | Total Number. | Birth-rate per 1,000 of population. | Male. | Female. | Total. | |
| 1,075,122 | 56,147 | 52·22 | 17,503 | 16,796 | 34,299 | 104·20 |
| 612,712 | 32,827 | 53·57 | 9,819 | 9,344 | 19,163 | 105·08 |
| 825,216 | 41,325 | 50·08 | 14,956 | 14,419 | 29,374 | 103·72 |
| 756,890 | 26,835 | 35·45 | 9,424 | 8,798 | 18,222 | 107·12 |
| 151,461 | 3,247 | 21·44 | 1,448 | 1,296 | 2,744 | 111·73 |
| 502,472 | 23,929 | 42·54 | 7,499 | 7,217 | 14,716 | 103·91 |
| 1,148,815 | 23,623 | 20·56 | 14,841 | 12,266 | 27,107 | 120·99 |
| 723,978 | 30,305 | 50·50 | 13,461 | 12,409 | 25,870 | 108·42 |
| 987,681 | 38,035 | 38·51 | 14,701 | 13,972 | 28,673 | 105·22 |
| 743,160 | 35,215 | 47·38 | 13,247 | 12,551 | 25,798 | 105·55 |
| 1,024,156 | 46,123 | 45·03 | 18,388 | 18,963 | 37,351 | 96·97 |
| 1,153,080 | 43,459 | 37·66 | 13,666 | 14,580 | 28,246 | 93·73 |
| 949,662 | 39,449 | 41·54 | 13,129 | 12,907 | 26,036 | 101·72 |
| 1,036,209 | 39,006 | 37·64 | 14,294 | 14,903 | 29,987 | 100·01 |
| 796,356 | 32,371 | 40·65 | 10,783 | 10,386 | 21,174 | 103·83 |
| 401,476 | 13,727 | 34·19 | 6,445 | 6,024 | 12,469 | 106·99 |
| 674,131 | 28,521 | 42·31 | 9,623 | 9,611 | 19,234 | 100·12 |
| 307,711 | 14,181 | 46·09 | 5,230 | 5,282 | 10,512 | 99·01 |
| 710,905 | 25,817 | 35·80 | 11,067 | 10,141 | 21,208 | 109·13 |
| 374,831 | 15,421 | 41·14 | 4,647 | 4,178 | 8,825 | 111·23 |
| 887,924 | 32,662 | 36·78 | 14,474 | 13,093 | 27,567 | 110·55 |
| 530,037 | 15,714 | 29·61 | 5,729 | 4,486 | 10,215 | 127·71 |
| 567,249 | 10,541 | 18·58 | 4,773 | 3,572 | 8,350 | 133·76 |
| 396,307 | 9,527 | 24·04 | 3,772 | 2,894 | 6,666 | 130·34 |
| 418,652 | 11,351 | 27·11 | 3,702 | 2,916 | 6,708 | 130·04 |
| 597,937 | 12,818 | 21·44 | 6,216 | 4,999 | 11,215 | 124·34 |
| 509,362 | 14,074 | 27·63 | 4,488 | 3,600 | 8,088 | 124·67 |
| 240,614 | 6,207 | 26·17 | 1,668 | 1,380 | 3,068 | 122·32 |
| 19,165,614 | 731,647 | 38·17 | 269,812 | 253,073 | 522,885 | 106·61 |

ANNUAL FORM

| 1 | 2 | Deaths per 1,000 of | | | | |
|---|---|---|---|---|---|---|
| Number. | Districts. | Cholera. | Small-pox. | Plague. | Fevers. | Dysentery and Diarrhœa. |
| | *Western Registration District.* | | | | | |
| 1 | East Khándesh ... ... ... | ·74 | ·95 | ... | 15·95 | 1·57 |
| 2 | West Khándesh ... ... ... | ·56 | ·36 | ... | 13·64 | ·99 |
| 3 | Násik ... ... ... | ·89 | 1·07 | ·95 | 14·42 | 1·61 |
| 4 | Thána ... ... ... | ·06 | ·11 | ·16 | 10·03 | ·89 |
| 5 | Bombay Suburban ... ... .. | ·06 | ·11 | ·15 | 3·61 | 1·98 |
| 6 | Kolába ... ... ... | ·06 | ·41 | ·23 | 9·29 | 1·81 |
| 7 | Bombay City ... ... ... | ·03 | ·52 | ·22 | 1·91 | 1·00 |
| | *Central Registration District.* | | | | | |
| 8 | Ahmednagar ... ... ... | 1·26 | ·78 | ·01 | 8·17 | 1·99 |
| 9 | Poona ... ... ... | ·93 | ·19 | ·02 | 10·50 | 1·63 |
| 10 | Sholápur ... ... ... | 1·14 | ·57 | ·08 | 13·23 | 2·19 |
| 11 | Sátára ... ... ... | 1·64 | ·30 | 8·04 | 11·01 | 1·84 |
| 12 | Ratnágiri ... ... ... | ·05 | ·21 | ·04 | 7·80 | ·97 |
| | *Southern Registration District.* | | | | | |
| 13 | Belgaum ... ... ... | ·09 | ·40 | ·63 | 8·04 | 2·48 |
| 14 | Dhárwár ... ... ... | ·01 | ·32 | 2·40 | 9·69 | ·91 |
| 15 | Bijápur ... ... ... | ·14 | ·06 | ·04 | 11·11 | 1·42 |
| 16 | Kánara ... ... ... | ·09 | ·20 | ·41 | 11·08 | 2·33 |
| | *Gujarát Registration District.* | | | | | |
| 17 | Surat ... ... ... | ·66 | ·06 | ·87 | 8·48 | 1·13 |
| 18 | Broach ... ... ... | ·00 | ·06 | ·00 | 15·47 | ·64 |
| 19 | Kaira ... ... ... | ·00 | ·00 | ·00 | 10·37 | 1·25 |
| 20 | Panch Maháls ... ... | ·00 | ·02 | ·00 | 14·53 | ·31 |
| 21 | Ahmedabad ... ... ... | ·00 | ·04 | ·00 | 14·87 | ·85 |
| | *Sind Registration District.* | | | | | |
| 22 | Karáchi ... ... ... | ·00 | ·01 | ... | 7·43 | ·66 |
| 23 | Hyderabad ... ... ... | ... | ·04 | ... | 10·03 | ·21 |
| 24 | Thar and Párkar ... ... ... | ... | ·01 | ... | 12·55 | ·05 |
| 25 | Nawabshah ... ... ... | ... | ·20 | ... | 13·67 | ·01 |
| 26 | Lárkána ... ... ... | ·32 | ·09 | ... | 16·70 | ·07 |
| 27 | Sukkur ... ... ... | ·02 | ·03 | ... | 12·41 | ·15 |
| 28 | Upper Sind Frontier ... ... ... | ·05 | ... | ... | 11·95 | ·03 |
| | Total for the Presidency ... | ·36 | ·27 | ·71 | 10·77 | 1·22 |

No. II—*contd.*

| 9 | | | | | | 10 | | |
|---|---|---|---|---|---|---|---|---|
| Population from | | | | | | Mean ratio of deaths per 1,000 during previous five years. | | |
| Respiratory Diseases. | Injuries. | All other causes. | All Causes. | | | | | |
| | | | Male. | Female. | Total. | Male. | Female. | Total. |
| 4·40 | ·23 | 8·67 | 32·09 | 31·75 | 31·90 | 31·93 | 31·93 | 31·93 |
| 4·41 | ·29 | 11·03 | 31·72 | 30·82 | 31·28 | 27·40 | 27·05 | 27·23 |
| 6·14 | ·37 | 0·85 | 35·73 | 35·45 | 35·59 | 29·78 | 28·28 | 29·04 |
| 5·13 | ·50 | 7·03 | 24·27 | 23·87 | 24·07 | 22·83 | 22·29 | 22·56 |
| 5 30 | ·29 | 6·12 | 16·54 | 20·29 | 18·12 | 16·80 | 19·00 | 17·73 |
| 5·57 | ·44 | 8·33 | 26·84 | 25·49 | 26·16 | 26·80 | 25·10 | 25·96 |
| 10·43 | ·58 | 8·92 | 19·74 | 31·14 | 25·50 | 24·60 | 37·40 | 29·03 |
| 6·77 | ·41 | 16·34 | 37·08 | 34·37 | 35·73 | 30·33 | 27·81 | 29·13 |
| 6·16 | ·36 | 8 89 | 29·37 | 28·69 | 29·03 | 29·15 | 27·21 | 28·20 |
| 3·99 | ·54 | 12·07 | 31·57 | 34·86 | 34·71 | 32·16 | 32·35 | 32·24 |
| 2·61 | ·57 | 10·46 | 36·02 | 36·91 | 36·47 | 29·53 | 28·49 | 29·01 |
| 4·09 | ·39 | 10·93 | 26·03 | 23·18 | 24·48 | 24·81 | 20·92 | 22·72 |
| 3·98 | ·57 | 11·32 | 27·09 | 27·75 | 27·42 | 27·59 | 28·24 | 27·92 |
| 3·35 | ·45 | 11·79 | 28·38 | 29·52 | 28·93 | 31·87 | 32·38 | 32·12 |
| 3·29 | ·40 | 10·22 | 26·63 | 26·55 | 26·59 | 27·64 | 27·42 | 27·53 |
| 3·01 | ·47 | 13·45 | 31·60 | 30·50 | 31·06 | 30·91 | 29·98 | 30·06 |
| 10·48 | ·31 | 7·14 | 28·53 | 28·53 | 28·53 | 26·88 | 27·97 | 28·44 |
| 8·96 | ·54 | 8·29 | 32·98 | 35·42 | 34·16 | 31·71 | 33·55 | 32·61 |
| 10·42 | ·53 | 7·26 | 29·14 | 30·61 | 29·83 | 27·42 | 29·07 | 28·19 |
| 3·30 | ·37 | 5·01 | 24·03 | 23·02 | 23·54 | 21·97 | 22·58 | 22 26 |
| 7·95 | ·51 | 6·88 | 30·35 | 31·60 | 31·05 | 29·41 | 31·11 | 30·21 |
| 5·59 | ·31 | 5·23 | 18·93 | 19·66 | 19·23 | 18·52 | 20·79 | 19·65 |
| 2·39 | ·27 | 1·78 | 15·08 | 14·26 | 14·72 | 15·56 | 15·30 | 15·47 |
| 2·77 | ·33 | 1·11 | 17·06 | 16·52 | 16·82 | 18·99 | 19·19 | 19·09 |
| 1·33 | ·35 | ·46 | 17·15 | 16·64 | 16·92 | 15·55 | 15·58 | 15·56 |
| ·55 | ·22 | ·79 | 18·76 | 18·74 | 18·75 | 14·48 | 14·88 | 14·68 |
| ·58 | ·26 | 2·44 | 15·04 | 15·84 | 15·89 | 17·60 | 18·99 | 18·44 |
| ·21 | ·22 | ·29 | 12·56 | 12·98 | 12·75 | 12·36 | 13·18 | 12·77 |
| 5·08 | ·41 | 8·46 | 26·85 | 27·76 | 27·28 | 26·02 | 26·58 | 26·29 |

ANNUAL FORM No. III.—DEATHS *registered in the* DISTRICTS

| 1 | 2 | | | | | | |
|---|---|---|---|---|---|---|---|
| Number. | Districts. | January. | February. | March. | April. | May. | |
| | *Western Registration District.* | | | | | | |
| 1 | East Khándesh ... ... ... | 1,749 | 1,731 | 2,021 | 3,427 | 3,233 | |
| 2 | West Khándesh ... ... ... | 1,236 | 1,309 | 1,954 | 1,733 | 1,381 | |
| 3 | Násik ... ... ... | 1,943 | 1,983 | 2,344 | 2,365 | 2,245 | |
| 4 | Thána ... ... ... | 1,546 | 1,779 | 1,970 | 1,488 | 1,321 | |
| 5 | Bombay Suburban ... ... ... | 226 | 240 | 229 | 190 | 213 | |
| 6 | Kolába ... ... ... | 1,387 | 1,371 | 1,450 | 1,050 | 1,059 | |
| 7 | City of Bombay ... ... ... | 2,265 | 2,284 | 2,472 | 2,589 | 2,411 | |
| | *Central Registration District.* | | | | | | |
| 8 | Ahmednagar ... ... .. | 1,447 | 1,481 | 1,568 | 1,991 | 2,331 | |
| 9 | Poona ... ... ... | 2,005 | 1,850 | 1,941 | 2,221 | 2,403 | |
| 10 | Sholápur ... ... ... | 1,580 | 1,441 | 1,664 | 1,711 | 2,398 | |
| 11 | Sátára ... ... ... | 1,872 | 1,765 | 2,008 | 2,041 | 2,537 | |
| 12 | Ratnágiri ... ... .. | 2,550 | 2,751 | 2,667 | 2,277 | 2,257 | |
| | *Southern Registration District.* | | | | | | |
| 13 | Belgaum ... ... ... | 1,860 | 1,750 | 2,438 | 2,182 | 2,325 | |
| 14 | Dhárwár ... ... ... | 2,684 | 2,240 | 2,630 | 2,245 | 2,201 | |
| 15 | Bijápur ... ... ... | 1,236 | 1,235 | 1,642 | 1,524 | 1,947 | |
| 16 | Kánara ... ... ... | 1,411 | 1,251 | 1,191 | 892 | 829 | |
| | *Gujarát Registration District.* | | | | | | |
| 17 | Surat ... ... ... | 1,655 | 1,837 | 1,847 | 1,412 | 1,395 | |
| 18 | Broach ... ... ... | 805 | 762 | 815 | 773 | 757 | |
| 19 | Kaira ... ... ... | 1,389 | 1,363 | 1,474 | 1,641 | 1,767 | |
| 20 | Panch Mahás ... ... ... | 771 | 693 | 601 | 755 | 727 | |
| 21 | Ahmedabad ... ... ... | 2,393 | 2,285 | 2,573 | 2,396 | 2,107 | |
| | *Sind Registration District.* | | | | | | |
| 22 | Karáchi ... ... ... | 1,154 | 1,339 | 1,050 | 767 | 748 | |
| 23 | Hyderabad ... ... ... | 1,112 | 1,261 | 1,081 | 686 | 486 | |
| 24 | Thar and Párkar ... ... ... | 973 | 1,169 | 1,187 | 593 | 417 | |
| 25 | Nawabshah ... ... ... | 874 | 881 | 911 | 639 | 382 | |
| 26 | Lárkána ... ... ... | 1,347 | 1,104 | 1,537 | 893 | 689 | |
| 27 | Sukkur ... ... ... | 744 | 716 | 735 | 658 | 676 | |
| 28 | Upper Sind Frontier ... ... | 349 | 291 | 297 | 250 | 191 | |
| | Total for the Presidency ... | 40,506 | 40,372 | 44,876 | 41,329 | 41,474 | |
| | Ratio of deaths per 1,000 in each month ... ... ... | 2·12 | 2·10 | 2·34 | 2·16 | 2·16 | |

*of the* BOMBAY PRESIDENCY *during each month of the year 1928*

| June. | July. | August. | September. | October. | November. | December. | 4 Total Deaths registered during the year. | 5 Number. |
|---|---|---|---|---|---|---|---|---|
| 2,415 | 3,041 | 4,086 | 3,131 | 2,667 | 3,195 | 2,763 | 34,299 | 1 |
| 1,167 | 1,283 | 1,798 | 1,574 | 1,531 | 2,045 | 2,107 | 19,163 | 2 |
| 1,977 | 2,457 | 2,590 | 2,561 | 2,846 | 2,881 | 3,132 | 29,374 | 3 |
| 1,160 | 1,218 | 1,402 | 1,414 | 1,481 | 1,757 | 1,736 | 18,222 | 4 |
| 181 | 186 | 253 | 242 | 245 | 270 | 269 | 2,744 | 5 |
| 949 | 1,131 | 1,293 | 1,170 | 1,086 | 1,275 | 1,504 | 14,716 | 6 |
| 1,907 | 2,059 | 2,095 | 2,118 | 2,296 | 2,389 | 2,242 | 27,107 | 7 |
| 1,994 | 2,889 | 2,804 | 2,241 | 2,395 | 2,453 | 2,296 | 25,870 | 8 |
| 2,418 | 3,158 | 2,739 | 2,375 | 2,357 | 2,557 | 2,650 | 28,673 | 9 |
| 2,003 | 3,042 | 3,601 | 2,310 | 2,225 | 2,267 | 2,362 | 25,798 | 10 |
| 2,520 | 3,624 | 3,599 | 3,270 | 4,879 | 5,172 | 4,064 | 37,351 | 11 |
| 1,923 | 2,245 | 2,442 | 2,139 | 2,177 | 2,315 | 2,508 | 28,246 | 12 |
| 2,159 | 2,441 | 2,413 | 2,659 | 1,947 | 2,185 | 2,277 | 26,036 | 13 |
| 1,076 | 2,110 | 2,173 | 2,326 | 2,713 | 3,302 | 3,367 | 29,987 | 14 |
| 1,813 | 2,169 | 2,023 | 1,761 | 1,720 | 1,986 | 2,118 | 21,174 | 15 |
| 872 | 804 | 995 | 997 | 991 | 1,004 | 1,222 | 12,469 | 16 |
| 1,429 | 1,563 | 1,606 | 1,445 | 1,545 | 1,691 | 1,899 | 19,234 | 17 |
| 774 | 793 | 890 | 846 | 1,062 | 1,186 | 1,049 | 10,512 | 18 |
| 1,575 | 1,895 | 1,949 | 2,167 | 2,496 | 1,949 | 1,723 | 21,208 | 19 |
| 613 | 611 | 652 | 694 | 870 | 996 | 842 | 8,825 | 20 |
| 1,639 | 1,717 | 2,378 | 2,505 | 2,618 | 2,470 | 2,488 | 27,567 | 21 |
| 655 | 566 | 656 | 611 | 700 | 833 | 1,196 | 10,215 | 22 |
| 453 | 404 | 330 | 404 | 569 | 681 | 833 | 8,350 | 23 |
| 383 | 340 | 255 | 214 | 427 | 340 | 388 | 6,666 | 24 |
| 352 | 342 | 301 | 378 | 573 | 530 | 545 | 6,708 | 25 |
| 662 | 535 | 522 | 709 | 1,005 | 1,157 | 1,055 | 11,215 | 26 |
| 537 | 552 | 515 | 552 | 767 | 816 | 820 | 8,088 | 27 |
| 170 | 199 | 170 | 195 | 324 | 354 | 278 | 3,068 | 28 |
| 36,656 | 43,349 | 45,780 | 42,318 | 46,722 | 49,940 | 49,603 | 522,885 | |
| 1·91 | 2·26 | 2·39 | 2·21 | 2·44 | 2·60 | 2·59 | 27·28 | |

ANNUAL FORM NO. IV.—DEATHS *registered according to* AGE *in*

| 1 | 2 | 3 | |
|---|---|---|---|
| No. | Districts. | Under 1 year. | |
| | | Male. | Female. |
| | *Western Registration District.* | | |
| 1 | East Khándesh ... ... ... ... | 6,033 | 5,111 |
| 2 | West Khándesh ... ... ... ... | 3,249 | 2,733 |
| 3 | Násik ... ... ... ... | 4,843 | 4,074 |
| 4 | Thána ... ... ... ... | 2,035 | 1,824 |
| 5 | Bombay Suburban ... ... ... ... | 290 | 276 |
| 6 | Kolába ... ... ... ... | 1,980 | 1,589 |
| 7 | Bombay City ... ... ... ... | 4,054 | 3,373 |
| | *Central Registration District.* | | |
| 8 | Ahmednagar ... ... ... ... | 4,645 | 3,677 |
| 9 | Poona ... ... ... ... | 4,455 | 3,531 |
| 10 | Sholápur ... ... ... ... | 4,431 | 3,604 |
| 11 | Sátára ... ... ... ... | 4,321 | 3,498 |
| 12 | Ratnágiri ... ... ... ... | 2,154 | 1,901 |
| | *Southern Registration District.* | | |
| 13 | Belgaum ... ... ... ... | 3,248 | 2,619 |
| 14 | Dhárwár ... ... ... ... | 3,819 | 2,849 |
| 15 | Bijápur ... ... ... ... | 2,741 | 2,194 |
| 16 | Kánara ... ... ... ... | 1,486 | 1,257 |
| | *Gujarat Registration District.* | | |
| 17 | Surat ... ... ... ... | 2,825 | 2,654 |
| 18 | Broach ... ... ... ... | 1,636 | 1,526 |
| 19 | Kaira ... ... ... ... | 2,544 | 2,334 |
| 20 | Panch Mahals ... ... ... ... | 1,117 | 1,026 |
| 21 | Ahmedabad ... ... ... ... | 3,894 | 3,508 |
| | *Sind Registration District.* | | |
| 22 | Karachi ... ... ... ... | 1,636 | 1,336 |
| 23 | Hyderabad ... ... ... ... | 1,023 | 816 |
| 24 | Thar and Parkar ... ... ... ... | 540 | 480 |
| 25 | Nawabshah ... ... ... ... | 720 | 501 |
| 26 | Lárkána ... ... ... ... | 913 | 784 |
| 27 | Sukkur ... ... ... ... | 1,186 | 935 |
| 28 | Upper Sind Frontier ... ... ... ... | 393 | 292 |
| | Total for the Presidency ... | 71,611 | 60,302 |
| | Population according to Census of 1921 ... | 287,146 | 282,999 |
| | Ratios per 1,000 living ... | 249·39 | 213·03 |

*the* DISTRICTS *of the* BOMBAY PRESIDENCY *during the year 1928*

| 4 | | 5 | | 6 | | 7 | |
|---|---|---|---|---|---|---|---|
| 1 year and under 5. | | 5 and under 10. | | 10 and under 15. | | 15 and under 20. | |
| Male. | Female. | Male. | Female. | Male. | Female. | Male. | Female. |
| 5,034 | 5,333 | 817 | 753 | 354 | 424 | 252 | 426 |
| 2,514 | 2,688 | 546 | 540 | 208 | 274 | 180 | 255 |
| 3,514 | 3,659 | 810 | 805 | 440 | 476 | 285 | 463 |
| 1,742 | 1,657 | 524 | 559 | 288 | 248 | 245 | 274 |
| 223 | 237 | 66 | 61 | 48 | 38 | 49 | 61 |
| 1,340 | 1,523 | 355 | 383 | 169 | 168 | 165 | 206 |
| 1,975 | 2,076 | 369 | 438 | 285 | 320 | 408 | 529 |
| 2,841 | 2,727 | 578 | 552 | 291 | 306 | 257 | 346 |
| 3,211 | 3,086 | 497 | 521 | 292 | 310 | 366 | 715 |
| 3,175 | 3,085 | 607 | 613 | 269 | 258 | 218 | 343 |
| 3,309 | 3,351 | 1,212 | 1,390 | 983 | 1,161 | 644 | 968 |
| 2,205 | 2,238 | 684 | 711 | 354 | 389 | 372 | 404 |
| 3,811 | 3,041 | 697 | 830 | 365 | 417 | 255 | 343 |
| 2,967 | 3,108 | 854 | 989 | 520 | 669 | 352 | 533 |
| 2,662 | 2,821 | 566 | 601 | 265 | 276 | 155 | 251 |
| 642 | 685 | 236 | 265 | 143 | 156 | 183 | 260 |
| 1,623 | 1,673 | 401 | 465 | 263 | 264 | 232 | 321 |
| 1,300 | 1,278 | 201 | 186 | 87 | 109 | 80 | 115 |
| 2,536 | 2,405 | 383 | 338 | 234 | 206 | 233 | 239 |
| 1,019 | 988 | 348 | 353 | 150 | 128 | 97 | 113 |
| 2,713 | 2,705 | 452 | 433 | 275 | 277 | 329 | 424 |
| 783 | 681 | 226 | 179 | 129 | 131 | 145 | 185 |
| 496 | 410 | 101 | 145 | 146 | 102 | 167 | 168 |
| 264 | 231 | 155 | 135 | 162 | 109 | 195 | 170 |
| 485 | 402 | 191 | 177 | 129 | 109 | 153 | 144 |
| 949 | 741 | 392 | 379 | 283 | 186 | 291 | 264 |
| 729 | 533 | 161 | 156 | 117 | 92 | 128 | 155 |
| 330 | 264 | 92 | 78 | 27 | 33 | 69 | 55 |
| 53,289 | 53,416 | 12,561 | 13,040 | 7,276 | 7,615 | 6,505 | 8,729 |
| 885,160 | 924,937 | 1,468,775 | 1,379,851 | 1,224,010 | 969,652 | 751,226 | 650,813 |
| 60·20 | 57·74 | 8·55 | 9·45 | 5·94 | 7·85 | 8·66 | 13·41 |

ANNUAL FORM

| 1 | 2 | 8 | |
|---|---|---|---|
| | | 20 and under 30. | |
| No. | Districts. | Male. | Female. |
| | *Western Registration District.* | | |
| 1 | East Khándesh ... ... ... ... | 608 | 922 |
| 2 | West Khándesh ... ... ... ... | 363 | 645 |
| 3 | Násik ... ... ... ... | 647 | 979 |
| 4 | Thána ... ... ... ... | 584 | 874 |
| 5 | Bombay Suburban ... ... ... ... | 119 | 137 |
| 6 | Kolába ... ... ... ... | 412 | 642 |
| 7 | Bombay City ... ... ... ... | 1,687 | 1,543 |
| | *Central Registration District.* | | |
| 8 | Ahmednagar ... ... ... ... | 576 | 899 |
| 9 | Poona ... ... ... ... | 1,004 | 1,250 |
| 10 | Sholápur ... ... ... ... | 570 | 816 |
| 11 | Sátára ... ... ... ... | 1,212 | 1,853 |
| 12 | Ratnágirí ... ... ... ... | 852 | 1,217 |
| | *Southern Registration District.* | | |
| 13 | Belgaum ... ... ... ... | 658 | 895 |
| 14 | Dhárwár ... ... ... ... | 1,025 | 1,352 |
| 15 | Bijápur ... ... ... ... | 439 | 657 |
| 16 | Kánara ... ... ... ... | 549 | 717 |
| | *Gujarat Registration District.* | | |
| 17 | Surat ... ... ... ... | 563 | 865 |
| 18 | Broach ... ... ... ... | 215 | 342 |
| 19 | Kaira ... ... ... ... | 580 | 691 |
| 20 | Panch Mahàls ... ... ... ... | 237 | 313 |
| 21 | Ahmedabad ... ... ... ... | 964 | 1,047 |
| | *Sind Registration District.* | | |
| 22 | Karáchi ... ... ... ... | 504 | 467 |
| 23 | Hyderabad ... ... ... ... | 518 | 476 |
| 24 | Thar and Párkar ... ... ... ... | 483 | 406 |
| 25 | Nawábsháh ... ... ... ... | 426 | 416 |
| 26 | Lárkána ... ... ... ... | 684 | 737 |
| 27 | Sukkur ... ... ... ... | 387 | 461 |
| 28 | Upper Sind Frontier ... ... ... ... | 119 | 163 |
| | Total for the Presidency ... | 16,995 | 21,701 |
| | Population according to Census of 1921 ... | 1,781,925 | 1,656,476 |
| | Ratios per 1,000 living ... | 9·54 | 13·10 |

No. IV—*contd.*

| 9 | | 10 | | 11 | | 12 | | 13 |
|---|---|---|---|---|---|---|---|---|
| 30 and under 40. | | 40 and under 50. | | 50 and under 60. | | 60 and upwards. | | No. |
| Male. | Female. | Male. | Female. | Male. | Female. | Male. | Female. | |
| 744 | 725 | 733 | 537 | 875 | 637 | 2,053 | 1,878 | 1 |
| 463 | 487 | 580 | 375 | 557 | 331 | 1,159 | 1,116 | 2 |
| 832 | 805 | 834 | 657 | 903 | 637 | 1,847 | 1,864 | 3 |
| 876 | 849 | 933 | 560 | 897 | 563 | 1,300 | 1,360 | 4 |
| 154 | 140 | 147 | 85 | 131 | 67 | 222 | 204 | 5 |
| 574 | 595 | 642 | 453 | 749 | 533 | 1,213 | 1,320 | 6 |
| 1,923 | 1,154 | 1,314 | 684 | 1,193 | 611 | 1,633 | 1,529 | 7 |
| 665 | 724 | 719 | 554 | 810 | 604 | 2,079 | 2,020 | 8 |
| 957 | 930 | 982 | 741 | 1,127 | 1,025 | 1,810 | 1,863 | 9 |
| 640 | 648 | 564 | 495 | 638 | 381 | 2,135 | 2,103 | 10 |
| 1,266 | 1,450 | 1,185 | 1,050 | 1,288 | 1,130 | 3,049 | 3,113 | 11 |
| 1,023 | 1,258 | 1,114 | 950 | 1,333 | 1,158 | 3,615 | 4,304 | 12 |
| 853 | 821 | 903 | 660 | 951 | 704 | 2,378 | 2,577 | 13 |
| 1,318 | 1,200 | 1,133 | 870 | 1,089 | 892 | 2,492 | 2,511 | 14 |
| 621 | 624 | 675 | 454 | 712 | 524 | 1,952 | 1,974 | 15 |
| 573 | 653 | 744 | 442 | 692 | 442 | 997 | 1,148 | 16 |
| 651 | 700 | 671 | 528 | 747 | 542 | 1,647 | 1,599 | 17 |
| 274 | 318 | 291 | 264 | 399 | 310 | 747 | 834 | 18 |
| 735 | 695 | 843 | 625 | 1,004 | 680 | 1,975 | 1,938 | 19 |
| 336 | 269 | 303 | 203 | 365 | 199 | 675 | 636 | 20 |
| 1,951 | 938 | 1,344 | 816 | 1,288 | 910 | 1,964 | 2,035 | 21 |
| 631 | 434 | 557 | 313 | 449 | 232 | 670 | 503 | 22 |
| 683 | 463 | 596 | 325 | 438 | 256 | 520 | 411 | 23 |
| 602 | 477 | 512 | 318 | 415 | 225 | 444 | 343 | 24 |
| 459 | 405 | 431 | 264 | 342 | 180 | 456 | 318 | 25 |
| 718 | 595 | 619 | 391 | 501 | 280 | 866 | 642 | 26 |
| 442 | 361 | 395 | 268 | 357 | 199 | 586 | 430 | 27 |
| 163 | 170 | 144 | 109 | 122 | 68 | 229 | 148 | 28 |
| 29,652 | 18,888 | 19,908 | 14,021 | 20,372 | 14,520 | 40,643 | 40,841 | |
| 1,642,370 | 1,349,148 | 1,025,082 | 901,969 | 615,561 | 556,398 | 467,220 | 480,976 | |
| 12·57 | 14·00 | 19·42 | 15·54 | 33·09 | 26·10 | 88·89 | 84·91 | |

ANNUAL FORM No. IV (*a*).—*Showing the details of* DEATHS *during the*

| No. | Districts. | Deaths | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | | Not exceeding one month. | | | | | | |
| | | Male. | | | Female. | | | Total of columns 5 and 8. |
| | | Under one week. | Over one week. | Total. | Under one week. | Over one week. | Total. | |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| | *Western Registration District.* | | | | | | | |
| 1 | East Khándesh ... ... | 1,260 | 979 | 2,239 | 990 | 834 | 1,824 | 4,063 |
| 2 | West Khándesh ... ... | 615 | 535 | 1,150 | 506 | 456 | 962 | 2,112 |
| 3 | Násik ... ... | 1,037 | 798 | 1,835 | 775 | 646 | 1,421 | 3,256 |
| 4 | Thána ... ... | 577 | 335 | 912 | 456 | 321 | 787 | 1,699 |
| 5 | Bombay Suburban ... ... | 77 | 39 | 116 | 87 | 40 | 127 | 243 |
| 6 | Kolába ... ... | 701 | 366 | 1,067 | 526 | 329 | 855 | 1,922 |
| 7 | Bombay City ... ... | 958 | 544 | 1,502 | 667 | 470 | 1,137 | 2,639 |
| | *Central Registration District.* | | | | | | | |
| 8 | Ahmednagar ... ... | 1,022 | 639 | 1,638 | 746 | 490 | 1,236 | 2,901 |
| 9 | Poona ... ... | 839 | 735 | 1,574 | 693 | 621 | 1,314 | 2,888 |
| 10 | Sholápur ... ... | 925 | 646 | 1,571 | 737 | 548 | 1,285 | 2,856 |
| 11 | Sátára ... ... | 912 | 537 | 1,449 | 680 | 472 | 1,152 | 2,601 |
| 12 | Ratnágiri ... ... | 607 | 405 | 1,012 | 482 | 378 | 860 | 1,873 |
| | *Southern Registration District.* | | | | | | | |
| 13 | Belgaum ... ... | 808 | 646 | 1,454 | 614 | 527 | 1,141 | 2,595 |
| 14 | Dhárwár ... ... | 744 | 660 | 1,404 | 613 | 573 | 1,186 | 2,590 |
| 15 | Bijápur ... ... | 566 | 541 | 1,107 | 409 | 427 | 836 | 1,943 |
| 16 | Kánara ... ... | 686 | 322 | 958 | 534 | 260 | 764 | 1,722 |
| | *Gujarát Registration District.* | | | | | | | |
| 17 | Surat ... ... | 665 | 462 | 1,127 | 593 | 409 | 1,002 | 2,129 |
| 18 | Broach ... ... | 330 | 286 | 616 | 322 | 237 | 559 | 1,175 |
| 19 | Kaira ... ... | 415 | 394 | 809 | 450 | 412 | 862 | 1,671 |
| 20 | Panch Mahals ... ... | 203 | 201 | 404 | 199 | 172 | 371 | 775 |
| 21 | Ahmedabad ... ... | 683 | 522 | 1,205 | 546 | 485 | 1,031 | 2,236 |
| | *Sind Registration District.* | | | | | | | |
| 22 | Karachi ... ... | 418 | 252 | 670 | 276 | 212 | 488 | 1,158 |
| 23 | Hyderabad ... ... | 247 | 211 | 458 | 185 | 158 | 343 | 801 |
| 24 | Thar and Párkar ... ... | 196 | 118 | 314 | 165 | 98 | 263 | 577 |
| 25 | Nawabshah ... ... | 212 | 165 | 377 | 165 | 121 | 286 | 663 |
| 26 | Lárkána ... ... | 197 | 200 | 397 | 173 | 142 | 315 | 712 |
| 27 | Sukkur ... ... | 229 | 224 | 453 | 190 | 152 | 342 | 795 |
| 28 | Upper Sind Frontier ... | 104 | 65 | 169 | 50 | 46 | 96 | 265 |
| | Total for the Presidency ... | 16,190 | 11,827 | 28,017 | 12,809 | 10,036 | 22,845 | 50,862 |

*under one year* IN THE DISTRICTS *of the* BOMBAY PRESIDENCY *year 1928*

UNDER ONE YEAR.

| Over one month and not exceeding six months. | | | Over six months and not exceeding twelve months. | | | Total, Male, columns 5, 10 and 13. | Total, Female, columns 8, 11 and 14. | Total. | No. |
|---|---|---|---|---|---|---|---|---|---|
| Male. | Female. | Total. | Male. | Female. | Total. | | | | |
| 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 |
| 2,157 | 1,841 | 3,978 | 1,657 | 1,446 | 3,103 | 6,033 | 5,111 | 11,144 | 1 |
| 1,230 | 1,054 | 2,284 | 869 | 717 | 1,586 | 3,249 | 2,733 | 5,982 | 2 |
| 1,796 | 1,586 | 3,382 | 1,212 | 1,067 | 2,279 | 4,843 | 4,074 | 8,917 | 3 |
| 835 | 713 | 1,548 | 288 | 324 | 612 | 2,035 | 1,824 | 3,859 | 4 |
| 101 | 83 | 184 | 73 | 66 | 139 | 280 | 276 | 556 | 5 |
| 648 | 488 | 1,136 | 265 | 246 | 511 | 1,980 | 1,589 | 3,569 | 6 |
| 1,161 | 963 | 2,124 | 1,391 | 1,273 | 2,664 | 4,054 | 3,373 | 7,427 | 7 |
| 1,519 | 1,258 | 2,770 | 1,465 | 1,183 | 2,648 | 4,645 | 3,677 | 8,322 | 8 |
| 1,771 | 1,369 | 3,140 | 1,110 | 848 | 1,958 | 4,455 | 3,531 | 7,986 | 9 |
| 1,767 | 1,483 | 3,250 | 1,093 | 836 | 1,929 | 4,431 | 3,604 | 8,035 | 10 |
| 1,854 | 1,567 | 3,421 | 916 | 779 | 1,697 | 4,221 | 3,498 | 7,719 | 11 |
| 746 | 650 | 1,405 | 396 | 382 | 778 | 2,154 | 1,901 | 4,055 | 12 |
| 1,132 | 956 | 2,098 | 692 | 512 | 1,174 | 3,248 | 2,619 | 5,867 | 13 |
| 1,155 | 991 | 2,147 | 759 | 672 | 1,431 | 3,319 | 2,849 | 6,168 | 14 |
| 1,061 | 873 | 1,934 | 573 | 485 | 1,058 | 2,741 | 2,194 | 4,935 | 15 |
| 370 | 336 | 706 | 158 | 157 | 315 | 1,486 | 1,257 | 2,743 | 16 |
| 978 | 933 | 1,911 | 720 | 719 | 1,439 | 2,825 | 2,654 | 5,479 | 17 |
| 598 | 556 | 1,154 | 422 | 411 | 833 | 1,636 | 1,526 | 3,162 | 18 |
| 961 | 832 | 1,793 | 774 | 640 | 1,414 | 2,544 | 2,334 | 4,878 | 19 |
| 421 | 399 | 820 | 292 | 256 | 548 | 1,117 | 1,026 | 2,143 | 20 |
| 1,391 | 1,122 | 2,413 | 1,303 | 1,355 | 2,763 | 3,694 | 3,508 | 7,403 | 21 |
| 528 | 460 | 988 | 438 | 388 | 826 | 1,636 | 1,336 | 2,972 | 22 |
| 322 | 248 | 570 | 243 | 225 | 468 | 1,023 | 816 | 1,839 | 23 |
| 124 | 126 | 250 | 102 | 91 | 193 | 540 | 480 | 1,020 | 24 |
| 178 | 105 | 283 | 165 | 110 | 275 | 720 | 501 | 1,221 | 25 |
| 287 | 242 | 529 | 229 | 227 | 456 | 913 | 784 | 1,697 | 26 |
| 306 | 270 | 575 | 427 | 323 | 750 | 1,186 | 935 | 2,121 | 27 |
| 116 | 118 | 234 | 108 | 78 | 186 | 393 | 292 | 685 | 28 |
| 25,387 | 21,641 | 47,028 | 18,207 | 15,816 | 34,023 | 71,611 | 60,302 | 131,913 | |

ANNUAL FORM No. V.—DEATHS *registered according* PRESIDENCY *during*

| 1 | 2 | | | | |
|---|---|---|---|---|---|
| | | | | Population | |
| No. | Districts. | Muhammadans. | | Hindus. | |
| | | Male. | Female. | Male. | Female. |
| | *Western Registration District.* | | | | |
| 1 | East Khandesh ... ... | 55,176 | 52,333 | 484,070 | 472,143 |
| 2 | West Khandesh ... ... | 16,011 | 15,346 | 262,850 | 256,831 |
| 3 | Nasik ... ... | 23,805 | 21,948 | 388,491 | 379,357 |
| 4 | Thana ... ... | 17,411 | 14,481 | 354,764 | 338,299 |
| 5 | Bombay Suburban ... ... | 8,728 | 5,625 | 65,684 | 46,744 |
| 6 | Kolaba ... ... | 14,012 | 14,342 | 262,562 | 256,748 |
| 7 | Bombay City ... ... | 126,177 | 57,210 | 543,171 | 289,272 |
| | *Central Registration District.* | | | | |
| 8 | Ahmednagar ... ... | 18,966 | 17,870 | 327,801 | 325,681 |
| 9 | Poona ... ... | 23,591 | 19,913 | 465,217 | 454,887 |
| 10 | Sholapur ... ... | 30,467 | 28,235 | 346,655 | 326,392 |
| 11 | Satara ... ... | 18,337 | 17,652 | 483,403 | 468,469 |
| 12 | Ratnagiri ... ... | 34,410 | 46,581 | 486,965 | 578,184 |
| | *Southern Registration District.* | | | | |
| 13 | Belgaum ... ... | 40,575 | 38,943 | 418,962 | 403,209 |
| 14 | Dharwar ... ... | 73,484 | 69,553 | 446,006 | 430,468 |
| 15 | Bijapur ... ... | 48,940 | 47,185 | 354,458 | 342,191 |
| 16 | Kanara ... ... | 12,580 | 13,822 | 182,587 | 175,191 |
| | *Gujarat Registration District.* | | | | |
| 17 | Surat ... ... | 28,071 | 28,179 | 279,833 | 280,147 |
| 18 | Broach ... ... | 36,065 | 33,903 | 117,003 | 110,217 |
| 19 | Kaira ... ... | 34,193 | 31,022 | 328,634 | 284,525 |
| 20 | Panch Mahals ... ... | 13,888 | 12,797 | 171,905 | 161,901 |
| 21 | Ahmedabad ... ... | 53,637 | 45,433 | 399,443 | 348,862 |
| | *Sind Registration District.* | | | | |
| 22 | Karachi ... ... | 213,208 | 168,986 | 82,381 | 53,744 |
| 23 | Hydorabad ... ... | 231,341 | 178,455 | 87,318 | 71,811 |
| 24 | Thar and Parkar ... ... | 118,596 | 94,139 | 98,214 | 77,812 |
| 25 | Nawabshah ... ... | 181,280 | 139,855 | 52,448 | 44,900 |
| 26 | Larkana ... ... | 277,501 | 222,052 | 53,024 | 44,130 |
| 27 | Sukkur ... ... | 200,273 | 158,123 | 79,859 | 68,329 |
| 28 | Upper Sind Frontier ... ... | 120,494 | 95,783 | 13,561 | 10,294 |
| | Total for the Presidency ... | 2,071,538 | 1,689,766 | 7,637,589 | 7,130,018 |

*N.B.*—This and all the other Statements refer to Indians only and not to Europeans. "Hindus"

*Note.*—Population by classes in Form V includes Jail figures.

*to* CLASSES *and* SEX *in the Districts of the* BOMBAY
*the year 1928*

3

ACCORDING TO THE CENSUS OF 1921.

| Jains. | | Christians. | | Parsis. | | Other Classes. | | Total. | | Total. |
|---|---|---|---|---|---|---|---|---|---|---|
| Male. | Female. | Male. | Female. | Male. | Female. | Male. | Female. | Male. | Female. | |
| 4,708 | 3,992 | 625 | 518 | 261 | 178 | 536 | 582 | 545,376 | 529,746 | 1,075,122 |
| 2,255 | 1,832 | 543 | 445 | 120 | 70 | 28,244 | 28,649 | 309,511 | 303,201 | 612,712 |
| 4,076 | 3,445 | 1,577 | 1,524 | 509 | 400 | 51 | 32 | 418,510 | 406,706 | 825,216 |
| 1,524 | 744 | 13,330 | 13,112 | 1,532 | 1,907 | 159 | 150 | 388,310 | 368,589 | 756,899 |
| 1,354 | 632 | 10,471 | 9,608 | 1,246 | 1,199 | 84 | 66 | 87,567 | 63,874 | 151,441 |
| 1,153 | 487 | 622 | 482 | 177 | 139 | 837 | 925 | 279,350 | 283,122 | 562,472 |
| 17,587 | 6,297 | 32,198 | 16,096 | 27,948 | 24,286 | 5,505 | 3,718 | 751,948 | 396,867 | 1,148,815 |
| 6,867 | 6,171 | 10,967 | 11,185 | 90 | 90 | 62 | 34 | 364,753 | 361,031 | 725,784 |
| 6,706 | 4,984 | 5,109 | 5,448 | 1,557 | 1,510 | 454 | 448 | 500,601 | 487,080 | 987,681 |
| 4,015 | 3,413 | 1,067 | 1,055 | 170 | 161 | ... | ... | 382,374 | 359,256 | 741,630 |
| 8,104 | 7,197 | 1,102 | 886 | 261 | 237 | 31 | 26 | 511,238 | 514,457 | 1,025,695 |
| 819 | 821 | 3,078 | 3,339 | 22 | 14 | 16 | 11 | 525,085 | 628,895 | 1,153,980 |
| 21,868 | 19,987 | 2,963 | 2,840 | 59 | 62 | 22 | 7 | 484,615 | 465,047 | 949,662 |
| 5,741 | 4,809 | 3,321 | 2,888 | 129 | 121 | 45 | 24 | 528,348 | 507,861 | 1,036,209 |
| 1,675 | 1,320 | 537 | 526 | 19 | 11 | ... | ... | 405,148 | 391,208 | 796,356 |
| 595 | 519 | 8,051 | 7,994 | 9 | 4 | 1 | ... | 203,950 | 197,526 | 401,476 |
| 5,427 | 4,817 | 948 | 680 | 5,037 | 5,014 | 17,960 | 17,008 | 337,276 | 336,845 | 674,121 |
| 1,758 | 1,497 | 1,406 | 1,178 | 1,045 | 1,176 | 1,271 | 1,172 | 158,568 | 149,143 | 307,711 |
| 3,210 | 3,128 | 13,276 | 12,236 | 54 | 40 | 335 | 252 | 379,702 | 331,203 | 710,905 |
| 256 | 857 | 1,626 | 1,555 | 127 | 113 | 4,883 | 4,923 | 193,385 | 181,446 | 374,831 |
| 18,353 | 17,094 | 2,424 | 1,947 | 861 | 802 | 174 | 173 | 473,693 | 414,231 | 887,924 |
| 635 | 483 | 3,611 | 2,348 | 1,396 | 1,323 | 1,899 | 1,219 | 302,563 | 228,094 | 530,657 |
| 45 | 37 | 127 | 87 | 34 | 23 | 14 | 8 | 316,834 | 250,415 | 567,249 |
| 150 | 118 | 43 | 16 | 4 | 4 | 4,067 | 3,144 | 221,074 | 175,233 | 396,307 |
| 1 | ... | 19 | 13 | 3 | ... | 75 | 58 | 233,326 | 184,326 | 418,652 |
| ... | ... | 27 | 9 | 2 | ... | 650 | 542 | 331,204 | 266,733 | 597,937 |
| 8 | 8 | 161 | 117 | 67 | 56 | 1,636 | 1,252 | 281,493 | 227,869 | 509,362 |
| 29 | 20 | 4 | 6 | ... | ... | 233 | 190 | 134,321 | 106,293 | 240,614 |
| 119,619 | 94,709 | 119,242 | 98,138 | 42,739 | 39,940 | 69,444 | 64,613 | 10,050,623 | 9,116,797 | 19,167,420 |

include Hindus of all castes. "Other Classes" include Buddhists, Sikhs, Jews and all others.

| 1 | 2 | | | | |
|---|---|---|---|---|---|
| No. | Districts | Muhammadans. | | Hindus. | |
| | | Male. | Female. | Male. | Female. |
| | *Western Registration District.* | | | | |
| 1 | East Khandesh ... ... | 1,251 | 1,253 | 16,237 | 15,528 |
| 2 | West Khandesh ... ... | 360 | 592 | 9,448 | 8,935 |
| 3 | Nasik ... ... | 824 | 808 | 14,078 | 13,561 |
| 4 | Thana ... ... | 464 | 480 | 8,654 | 8,059 |
| 5 | Bombay Suburban ... ... | 129 | 137 | 1,116 | 982 |
| 6 | Kolaba ... ... | 378 | 364 | 7,091 | 6,815 |
| 7 | Bombay City ... ... | 3,223 | 2,670 | 9,939 | 8,242 |
| | *Central Registration District.* | | | | |
| 8 | Ahmednagar ... ... | 635 | 568 | 12,706 | 11,701 |
| 9 | Poona ... ... | 593 | 624 | 14,040 | 13,270 |
| 10 | Sholapur ... ... | 941 | 891 | 12,241 | 11,585 |
| 11 | Satara ... ... | 675 | 651 | 17,590 | 18,191 |
| 12 | Ratnagiri ... ... | 891 | 930 | 12,719 | 13,605 |
| | *Southern Registration District.* | | | | |
| 13 | Belgaum ... ... | 979 | 965 | 11,651 | 11,457 |
| 14 | Dharwar ... ... | 2,115 | 2,219 | 12,679 | 12,583 |
| 15 | Bijapur ... ... | 1,262 | 1,179 | 9,485 | 9,173 |
| 16 | Kanara ... ... | 377 | 378 | 5,805 | 5,434 |
| | *Gujarat Registration District.* | | | | |
| 17 | Surat ... ... | 808 | 927 | 8,585 | 8,425 |
| 18 | Broach ... ... | 1,040 | 1,102 | 4,133 | 4,107 |
| 19 | Kaira ... ... | 1,047 | 940 | 5,823 | 5,970 |
| 20 | Panch Mahals ... ... | 320 | 262 | 4,288 | 3,992 |
| 21 | Ahmedabad ... ... | 1,827 | 1,649 | 12,115 | 10,944 |
| | *Sind Registration District.* | | | | |
| 22 | Karachi ... ... | 3,791 | 2,804 | 1,367 | 1,622 |
| 23 | Hyderabad ... ... | 3,153 | 2,308 | 1,623 | 1,261 |
| 24 | Thar and Parkar ... ... | 2,191 | 1,672 | 1,571 | 1,219 |
| 25 | Nawabshah ... ... | 2,864 | 2,125 | 925 | 788 |
| 26 | Larkana ... ... | 5,098 | 4,043 | 1,122 | 954 |
| 27 | Sukkur ... ... | 2,628 | 1,940 | 1,841 | 1,652 |
| 28 | Upper Sind Frontier ... ... | 1,474 | 1,186 | 214 | 193 |
| | Total for the Presidency ... | 41,334 | 35,417 | 223,575 | 213,148 |

No. V—*contd.*

4

NUMBER OF DEATHS REGISTERED.

| Jains. | | Christians. | | Parsis. | | Other Classes. | | Total. | | Total. |
|---|---|---|---|---|---|---|---|---|---|---|
| Male. | Female. | Male. | Female. | Male. | Female. | Male. | Female. | Male. | Female. | |
| 8 | 4 | 5 | 3 | 1 | 1 | 11 | 7 | 17,503 | 16,796 | 34,299 |
| 3 | 4 | 8 | 13 | ... | ... | ... | ... | 9,819 | 9,344 | 19,163 |
| 24 | 33 | 16 | 11 | 8 | 6 | 5 | ... | 14,955 | 14,419 | 29,374 |
| 2 | 3 | 271 | 275 | 22 | 24 | 11 | 7 | 9,424 | 8,798 | 18,222 |
| 8 | 5 | 191 | 162 | 2 | 2 | 2 | 1 | 1,448 | 1,296 | 2,744 |
| 2 | 2 | 5 | 17 | ... | ... | 22 | 19 | 7,499 | 7,217 | 14,716 |
| 353 | 317 | 728 | 550 | 468 | 388 | 111 | 99 | 14,841 | 12,266 | 27,107 |
| 41 | 42 | 79 | 96 | ... | 2 | ... | ... | 13,461 | 12,409 | 25,870 |
| 5 | 10 | 44 | 49 | 14 | 15 | 5 | 4 | 14,701 | 13,972 | 28,673 |
| 55 | 60 | 10 | 15 | ... | ... | ... | ... | 13,247 | 12,551 | 25,798 |
| 114 | 109 | 7 | 10 | 1 | 2 | ... | ... | 18,388 | 18,963 | 37,351 |
| 10 | 5 | 46 | 40 | ... | ... | ... | ... | 13,666 | 14,580 | 28,246 |
| 453 | 437 | 43 | 48 | 3 | ... | ... | ... | 13,129 | 12,907 | 26,036 |
| 143 | 131 | 57 | 60 | ... | ... | ... | ... | 14,994 | 14,993 | 29,987 |
| 29 | 21 | 12 | 13 | ... | ... | ... | ... | 10,788 | 10,386 | 21,174 |
| 14 | 15 | 240 | 186 | ... | 1 | ... | ... | 6,445 | 6,024 | 12,469 |
| 119 | 131 | 19 | 21 | 92 | 107 | ... | ... | 9,623 | 9,611 | 19,234 |
| 36 | 29 | 9 | 15 | 12 | 29 | ... | ... | 5,230 | 5,282 | 10,512 |
| 60 | 51 | 138 | 180 | ... | ... | ... | ... | 11,067 | 10,141 | 21,208 |
| 23 | 17 | 17 | 6 | ... | 1 | ... | ... | 4,647 | 4,178 | 8,825 |
| 438 | 407 | 64 | 56 | 12 | 23 | 18 | 4 | 14,474 | 13,093 | 27,567 |
| ... | 1 | 42 | 23 | 13 | 12 | 16 | 21 | 5,729 | 4,486 | 10,215 |
| ... | ... | 2 | 2 | ... | ... | ... | 1 | 4,778 | 3,572 | 8,350 |
| 8 | 2 | 1 | ... | ... | ... | 1 | 1 | 3,772 | 2,894 | 6,666 |
| ... | ... | 1 | ... | ... | ... | 2 | 3 | 3,792 | 2,916 | 6,708 |
| ... | ... | ... | ... | ... | ... | 1 | 2 | 6,216 | 4,999 | 11,215 |
| 1 | ... | 12 | 6 | ... | ... | 6 | 2 | 4,488 | 3,600 | 8,088 |
| ... | ... | ... | 1 | ... | ... | ... | ... | 1,688 | 1,380 | 3,068 |
| 1,957 | 1,886 | 2,087 | 1,688 | 648 | 613 | 211 | 171 | 269,812 | 253,073 | 522,885 |

| 1 | 2 | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| No. | Districts. | Muhammadans. | | Hindus. | | Jains. | |
| | | Male. | Female. | Male. | Female. | Male. | Female. |
| | *Western Registration District.* | | | | | | |
| 1 | East Khandesh ... ... | 22·79 | 23·94 | 33·52 | 33·66 | 1·70 | 1·00 |
| 2 | West Khandesh ... ... | 21·67 | 24·65 | 34·68 | 33·63 | 1·65 | 2·17 |
| 3 | Nasik ... ... | 34·61 | 36·61 | 36·24 | 35·75 | 5·88 | 9·68 |
| 4 | Thana ... ... | 26·65 | 29·69 | 24·39 | 23·62 | 1·31 | 4·03 |
| 5 | Bombay Suburban ... ... | 14·78 | 24·35 | 16·99 | 21·02 | 5·90 | 7·91 |
| 6 | Kolaba ... ... | 26·97 | 25·38 | 27·01 | 25·95 | 1·73 | 4·11 |
| 7 | Bombay City ... ... | 25·54 | 46·67 | 37·85 | 28·49 | 20·58 | 50·34 |
| | *Central Registration District.* | | | | | | |
| 8 | Ahmednagar ... ... | 33·48 | 31·78 | 38·76 | 35·93 | 5·97 | 6·80 |
| 9 | Poona ... ... | 25·14 | 31·59 | 30·18 | 29·17 | ·74 | 1·91 |
| 10 | Sholapur ... ... | 30·69 | 31·56 | 35·23 | 35·42 | 13·70 | 17·58 |
| 11 | Satara ... ... | 36·86 | 36·88 | 36·45 | 37·30 | 14·07 | 15·15 |
| 12 | Ratnagiri ... ... | 25·89 | 19·97 | 27·24 | 23·53 | 12·21 | 6·09 |
| | *Southern Registration District.* | | | | | | |
| 13 | Belgaum ... ... | 23·95 | 24·78 | 27·81 | 28·41 | 20·72 | 21·66 |
| 14 | Dharwar ... ... | 28·78 | 31·90 | 28·43 | 29·23 | 24·91 | 27·34 |
| 15 | Bijapur ... ... | 25·79 | 24·99 | 26·76 | 26·81 | 17·31 | 15·91 |
| 16 | Kanara ... ... | 29·97 | 27·35 | 31·74 | 31·02 | 23·53 | 28·90 |
| | *Gujarat Registration District.* | | | | | | |
| 17 | Surat ... ... | 28·78 | 32·90 | 30·68 | 30·07 | 21·93 | 27·19 |
| 18 | Broach ... ... | 28·82 | 32·50 | 35·32 | 37·26 | 20·48 | 19·37 |
| 19 | Kaira ... ... | 30·62 | 30·30 | 29·90 | 31·53 | 18·69 | 16·30 |
| 20 | Panch Mahals ... ... | 23·04 | 20·47 | 24·94 | 24·14 | 23·01 | 19·84 |
| 21 | Ahmedabad ... ... | 34·05 | 36·30 | 30·33 | 31·37 | 23·81 | 23·81 |
| | *Sind Registration District.* | | | | | | |
| 22 | Karachi ... ... | 17·78 | 16·59 | 22·90 | 30·18 | ... | 2·07 |
| 23 | Hyderabad ... ... | 13·63 | 12·93 | 18·58 | 17·42 | ... | ... |
| 24 | Thar and Parkar ... ... | 18·46 | 17·76 | 15·99 | 15·66 | 53·00 | 16·94 |
| 25 | Nawabshah ... ... | 15·79 | 15·19 | 1·77 | 17·55 | ... | ... |
| 26 | Larkana ... ... | 18·35 | 18·33 | 21·26 | 21·61 | ... | ... |
| 27 | Sukkur ... ... | 13·12 | 12·25 | 23·04 | 24·18 | 125·00 | ... |
| 28 | Upper Sind Frontier ... ... | 12·23 | 12·38 | 15·78 | 18·79 | ... | ... |
| | Total for the Presidency ... | 19·95 | 18·74 | 29·27 | 29·29 | 16·26 | 19·39 |

No. V—*concld.*

5

RATIO OF DEATHS PER 1,000 OF POPULATION.

| Christians. | | Parsis. | | Other Classes. | | Total. | | |
|---|---|---|---|---|---|---|---|---|
| Male. | Female. | Male. | Female. | Male. | Female. | Male. | Female. | Total. |
| 7·67 | 5·79 | 3·83 | 5·62 | 20·52 | 13·16 | 32·09 | 31·75 | 31·90 |
| 14·65 | 29·15 | ... | ... | ... | ... | 30·23 | 29·46 | 29·85 |
| 10·14 | 7·21 | 15·71 | 15·00 | 98·04 | ... | 35·73 | 35·45 | 35·59 |
| 23·16 | 20·97 | 14·36 | 12·58 | 69·18 | 46·66 | 24·24 | 23·86 | 24·06 |
| 18·13 | 17·59 | 1·60 | 1·67 | 23·81 | 15·15 | 16·53 | 20·29 | 18·12 |
| 9·64 | 35·27 | ... | ... | 26·28 | 20·54 | 26·84 | 25·49 | 26·16 |
| 22·32 | 34·17 | 16·74 | 15·98 | 20·16 | 26·63 | 19·74 | 31·14 | 23·59 |
| 7·20 | 8·58 | ... | 22·22 | ... | ... | 37·08 | 34·37 | 35·73 |
| 8·61 | 8·99 | 8·98 | 9·93 | 11·01 | 8·93 | 29·37 | 28·69 | 29·03 |
| 9·37 | 14·22 | ... | ... | ... | ... | 34·57 | 34·86 | 34·71 |
| 6·35 | 11·29 | 3·83 | 8·44 | ... | ... | 36·02 | 36·91 | 36·47 |
| 14·98 | 11·98 | ... | ... | ... | ... | 26·03 | 23·18 | 24·48 |
| 14·29 | 16·74 | 50·85 | ... | ... | ... | 27·09 | 27·75 | 27·42 |
| 17·16 | 20·78 | ... | ... | ... | ... | 28·38 | 29·52 | 28·94 |
| 22·35 | 24·71 | ... | ... | ... | ... | 26·63 | 26·55 | 26·59 |
| 30·93 | 24·52 | ... | 250·00 | ... | ... | 31·60 | 30·49 | 31·06 |
| 20·04 | 36·88 | 18·26 | 17·79 | ... | ... | 28·53 | 28·53 | 28·53 |
| 6·40 | 12·73 | 11·48 | 24·66 | ... | ... | 32·98 | 35·42 | 34·16 |
| 10·40 | 14·71 | ... | ... | ... | ... | 29·14 | 30·61 | 29·88 |
| 10·46 | 3·86 | ... | 8·85 | ... | ... | 24·03 | 23·02 | 23·64 |
| 26·40 | 33·90 | 13·94 | 28·68 | 103·45 | 23·12 | 30·55 | 31·60 | 31·05 |
| 11·63 | 11·12 | 9·31 | 9·06 | 8·42 | 17·23 | 18·93 | 19·66 | 19·23 |
| 15·75 | 22·96 | ... | ... | ... | 125·00 | 15·08 | 14·26 | 14·72 |
| 23·25 | ... | ... | ... | ·24 | ·32 | 17·06 | 16·52 | 16·82 |
| 52·63 | ... | ... | ... | 26·66 | 51·72 | 17·15 | 16·64 | 16·02 |
| ... | ... | ... | ... | 1·54 | 3·69 | 18·76 | 18·74 | 18·75 |
| 74·47 | 51·27 | ... | ... | 3·26 | 1·59 | 15·94 | 15·84 | 15·89 |
| ... | 166·66 | ... | ... | ... | ... | 12·56 | 12·98 | 12·75 |
| 17·50 | 19·24 | 15·16 | 15·35 | 8·04 | 2·49 | 26·85 | 27·76 | 27·28 |

ANNUAL FORM No. VI.—DEATHS *registered from*
BOMBAY PRESIDENCY
*Details regarding Births*

| 1 | 2 | 3 | 4 | | | |
|---|---|---|---|---|---|---|
| | | | Births. | | | |
| No. | Districts and Towns. | Population according to Census of 1921. | Male. | Female. | Total. | Birth-rate. |
| | A.—DISTRICTS (EXCLUDING TOWNS). | | | | | |
| | *Western Registration District.* | | | | | |
| 1 | East Khándesh ... ... ... | 918,037 | 26,066 | 24,901 | 50,967 | 55·52 |
| 2 | West Khándesh ... ... ... | 568,869 | 15,858 | 15,083 | 30,941 | 54·40 |
| 3 | Násik ... ... ... | 705,858 | 19,534 | 18,703 | 38,237 | 54·17 |
| 4 | Thána ... ... ... | 694,653 | 13,986 | 12,268 | 25,254 | 36·35 |
| 5 | Bombay Suburban ... ... ... | 91,943 | 1,009 | 910 | 1,919 | 20·87 |
| 6 | Kolába ... ... ... | 533,270 | 12,011 | 11,309 | 23,320 | 43·73 |
| | *Central Registration District.* | | | | | |
| 7 | Ahmednagar ... ... ... | 667,106 | 19,541 | 18,608 | 38,149 | 57·19 |
| 8 | Poona ... ... ... | 770,334 | 17,281 | 16,222 | 33,503 | 43·49 |
| 9 | Sholápur ... ... ... | 576,538 | 14,794 | 13,985 | 28,779 | 49·92 |
| 10 | Sátára ... ... ... | 963,309 | 22,864 | 21,815 | 44,679 | 46·38 |
| 11 | Ratnágiri ... ... ... | 1,083,350 | 21,262 | 20,131 | 41,393 | 38·21 |
| | *Southern Registration District.* | | | | | |
| 12 | Belgáum ... ... ... | 871,163 | 18,932 | 18,225 | 37,157 | 42·65 |
| 13 | Dhárwár ... ... ... | 870,565 | 17,025 | 16,447 | 33,472 | 38·45 |
| 14 | Bijápur ... ... ... | 717,798 | 15,015 | 14,335 | 29,350 | 40·89 |
| 15 | Kánara ... ... ... | 350,246 | 6,278 | 6,017 | 12,295 | 35·10 |
| | *Gujarat Registration District.* | | | | | |
| 16 | Surat ... ... ... | 526,365 | 11,721 | 11,249 | 22,970 | 43·63 |
| 17 | Broach ... ... ... | 243,112 | 5,811 | 5,538 | 11,349 | 46·68 |
| 18 | Káira ... ... ... | 604,528 | 11,293 | 10,089 | 21,382 | 35·37 |
| 19 | Panch Mahális ... ... ... | 331,791 | 7,161 | 6,687 | 13,848 | 42·04 |
| 20 | Ahmedabad ... ... | 568,759 | 10,049 | 9,204 | 19,253 | 33·85 |
| | *Sind Registration District.* | | | | | |
| 21 | Karáchi ... ... ... | 307,576 | 2,636 | 1,847 | 4,483 | 14·57 |
| 22 | Hyderabad ... ... ... | 480,469 | 4,172 | 3,087 | 7,259 | 15·11 |
| 23 | Thar and Párkar ... ... ... | 386,343 | 5,100 | 4,202 | 9,302 | 24·07 |
| 24 | Nawábsháh ... ... ... | 402,915 | 6,381 | 4,593 | 10,974 | 27·24 |
| 25 | Larkana ... ... ... | 562,636 | 6,601 | 5,004 | 11,605 | 20·62 |
| 26 | Sukkur ... ... ... | 394,216 | 5,825 | 4,470 | 10,295 | 26·12 |
| 27 | Upper Sind Frontier ... ... ... | 230,036 | 3,497 | 2,609 | 6,106 | 26·54 |
| | Total of Districts ... | 15,421,829 | 320,703 | 297,538 | 618,241 | 40·09 |

*different causes in the* DISTRICTS *and* TOWNS *of the*
*during the year 1928*
*also shown, column 4*

| 5 | 6 | 7 | 8 | 9 | 10 | 11 INJURIES—*(continued on next page).* | |
|---|---|---|---|---|---|---|---|
| | | | | | | Suicide. | |
| Cholera. | Small-pox. | Plague. | Fevers. | Dysentery and Diarrhœa. | Respiratory Diseases. | Male. | Female. |
| 606 | 374 | ... | 15,684 | 1,478 | 4,112 | 9 | 5 |
| 318 | 217 | 1 | 8,057 | 527 | 2,402 | 6 | 4 |
| 628 | 528 | 714 | 10,991 | 1,151 | 4,554 | 9 | 5 |
| 33 | 62 | 69 | 7,119 | 655 | 3,567 | 15 | 13 |
| 8 | 16 | 20 | 451 | 216 | 523 | 3 | 3 |
| 36 | 214 | 130 | 5,116 | 1,012 | 3,014 | 5 | 5 |
| 896 | 452 | 3 | 5,696 | 1,362 | 4,590 | 7 | 9 |
| 854 | 141 | 1 | 9,036 | 1,270 | 4,034 | 6 | 3 |
| 679 | 101 | 51 | 7,042 | 1,318 | 2,202 | 14 | 6 |
| 1,607 | 235 | 7,353 | 11,027 | 1,778 | 2,445 | 22 | 14 |
| 54 | 195 | 1 | 8,611 | 1,029 | 4,439 | 6 | 8 |
| 82 | 382 | 570 | 7,180 | 2,245 | 3,406 | 36 | 26 |
| 5 | 311 | 1,378 | 8,899 | 759 | 2,589 | 29 | 14 |
| 103 | 46 | 27 | 8,221 | 1,059 | 2,217 | 27 | 11 |
| 35 | 75 | 129 | 4,159 | 317 | 1,098 | 13 | 2 |
| 37 | 35 | 464 | 5,201 | 384 | 5,126 | 5 | 5 |
| ... | 18 | ... | 4,194 | 223 | 2,274 | 2 | 7 |
| ... | 1 | ... | 5,896 | 760 | 6,470 | 8 | 9 |
| ... | 6 | ... | 4,688 | 113 | 1,173 | 4 | 5 |
| ... | 29 | ... | 9,185 | 288 | 2,535 | 5 | 5 |
| 1 | .. | ... | 3,267 | 25 | 581 | 1 | 1 |
| ... | 13 | ... | 5,209 | 16 | 492 | ... | ... |
| ... | 2 | ... | 4,888 | 17 | 1,022 | 2 | ... |
| ... | 32 | ... | 5,589 | 5 | 499 | 4 | 1 |
| 173 | 55 | ... | 9,561 | 18 | 186 | 3 | 2 |
| 7 | 8 | ... | 4,889 | 30 | 67 | 6 | 3 |
| 11 | ... | ... | 2,782 | 6 | 43 | ... | 1 |
| 6,173 | 3,548 | 10,911 | 182,698 | 18,561 | 65,660 | 247 | 167 |

ANNUAL FORM

| 1 | 2 | 11 | | | | 12 | 13 |
|---|---|---|---|---|---|---|---|
| | | INJURIES—*contd.* | | | | | |
| No. | Districts and Towns. | Wounding or Accident. | Snakebite, or killed by wild beasts. | Rabies. | Total. | All other causes. | Total deaths from all causes. |
| | A.—DISTRICTS (EXCLUDING TOWNS). | | | | | | |
| | *Western Registration District.* | | | | | | |
| 1 | East Khandesh ... ... ... | 141 | 40 | 8 | 203 | 8,337 | 30,794 |
| 2 | West Khandesh ... ... ... | 90 | 49 | 2 | 161 | 6,266 | 17,938 |
| 3 | Nasik ... ... ... | 178 | 43 | 18 | 253 | 7,235 | 26,054 |
| 4 | Thana ... ... ... | 179 | 128 | 7 | 342 | 4,942 | 16,789 |
| 5 | Bombay Suburban ... ... | 58 | 4 | ... | 68 | 496 | 1,798 |
| 6 | Kolaba ... ... ... | 156 | 68 | 1 | 235 | 4,522 | 14,279 |
| | *Central Registration District.* | | | | | | |
| 7 | Ahmednagar ... ... ... | 215 | 35 | 10 | 276 | 11,400 | 24,675 |
| 8 | Poona ... ... ... | 235 | 41 | 8 | 293 | 6,181 | 21,810 |
| 9 | Sholapur ... ... ... | 234 | 33 | 6 | 293 | 7,366 | 19,052 |
| 10 | Satara ... ... ... | 376 | 104 | 18 | 534 | 10,135 | 35,114 |
| 11 | Ratnagiri ... ... ... | 197 | 215 | 6 | 432 | 11,676 | 26,637 |
| | *Southern Registration District.* | | | | | | |
| 12 | Belgaum ... ... ... | 401 | 36 | 10 | 509 | 10,003 | 24,377 |
| 13 | Dharwar ... ... ... | 285 | 54 | 8 | 390 | 10,182 | 24,513 |
| 14 | Bijapur ... ... ... | 218 | 29 | 1 | 286 | 6,794 | 18,813 |
| 15 | Kanara ... ... ... | 136 | 16 | 4 | 171 | 5,001 | 11,485 |
| | *Gujarat Registration District.* | | | | | | |
| 16 | Surat ... ... ... | 107 | 34 | 5 | 156 | 2,766 | 14,169 |
| 17 | Broach ... ... ... | 80 | 33 | 4 | 126 | 1,817 | 8,652 |
| 18 | Kaira ... ... ... | 223 | 58 | 17 | 315 | 4,391 | 17,833 |
| 19 | Panch Mahals ... ... ... | 71 | 54 | 4 | 138 | 1,814 | 7,932 |
| 20 | Ahmedabad ... ... ... | 175 | 99 | 12 | 296 | 2,462 | 14,795 |
| | *Sind Registration District.* | | | | | | |
| 21 | Karachi ... ... ... | 35 | 29 | ... | 66 | 293 | 4,233 |
| 22 | Hyderabad ... ... ... | 52 | 60 | ... | 112 | 234 | 6,076 |
| 23 | Thar and Parkar ... ... ... | 54 | 71 | 1 | 128 | 397 | 6,454 |
| 24 | Nawabshah ... ... ... | 90 | 46 | 3 | 144 | 188 | 6,457 |
| 25 | Larkana ... ... ... | 84 | 29 | ... | 118 | 197 | 10,308 |
| 26 | Sukkur ... ... ... | 62 | 19 | ... | 90 | 167 | 5,258 |
| 27 | Upper Sind Frontier ... ... | 46 | 6 | ... | 53 | 47 | 2,942 |
| | Total of Districts ... | 4,178 | 1,433 | 153 | 6,178 | 125,508 | 419,237 |

No. VI—*contd.*

14

RATIO OF DEATHS PER 1,000 OF POPULATION.

| Cholera. | Small-pox. | Plague. | Fevers. | Dysentery and Diarrhœa. | Respiratory Diseases. | Injuries. | All other causes. | From all causes. | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | For the year. | Mean of previous five years. |
| ·66 | ·40 | ... | 17·02 | 1·51 | 4·48 | ·23 | 9·03 | 33·54 | 33·08 |
| ·56 | ·38 | ... | 14·16 | ·93 | 4·23 | ·27 | 11·01 | 31·53 | 27·52 |
| ·89 | ·75 | 1·01 | 15·57 | 1·63 | 6·45 | ·36 | 10·25 | 36·91 | 29·80 |
| ·05 | ·09 | ·10 | 10·25 | ·94 | 5·13 | ·49 | 7·11 | 24·17 | 22·53 |
| ·09 | ·17 | ·22 | 4·90 | 2·35 | 5·69 | ·74 | 5·40 | 19·56 | 18·14 |
| ·07 | ·40 | ·24 | 9·59 | 5·65 | 1·90 | ·44 | 8·48 | 26·77 | 26·36 |
| 1·34 | ·68 | ... | 8·54 | 2·04 | 6·89 | ·41 | 17·08 | 36·98 | 30·12 |
| 1·11 | ·18 | ... | 11·73 | 1·65 | 5·24 | ·38 | 8·02 | 28·31 | 26·86 |
| 1·18 | ·18 | ·09 | 12·21 | 2·29 | 3·82 | ·51 | 12·77 | 33·05 | 30·09 |
| 1·67 | ·25 | 7·62 | 11·45 | 1·85 | 2·54 | ·55 | 10·52 | 36·45 | 29·29 |
| ·05 | ·18 | ·01 | 7·95 | ·95 | 4·10 | ·40 | 10·95 | 24·59 | 22·91 |
| ·09 | ·44 | ·66 | 8·24 | 2·58 | 3·91 | ·58 | 11·48 | 27·98 | 28·30 |
| ·01 | ·36 | 1·58 | 10·22 | ·87 | 2·97 | ·45 | 11·70 | 28·16 | 32·63 |
| ·14 | ·06 | ·04 | 11·54 | 1·47 | 3·09 | ·40 | 9·47 | 26·21 | 27·02 |
| ·10 | ·21 | ·37 | 11·67 | 2·33 | 3·14 | ·49 | 14·28 | 32·79 | 31·70 |
| ·07 | ·07 | ·88 | 9·88 | ·73 | 9·73 | ·30 | 5·25 | 26·91 | 27·15 |
| ... | ·07 | ... | 17·25 | ·92 | 9·35 | ·52 | 7·47 | 35·58 | 33·24 |
| ... | ... | ... | 9·75 | 1·26 | 10·70 | ·52 | 7·26 | 29·49 | 27·36 |
| ... | ·02 | ... | 14·13 | ·34 | 3·54 | ·42 | 5·46 | 23·91 | 23·40 |
| ... | ·05 | ... | 16·15 | ·51 | 4·45 | ·52 | 4·33 | 26·01 | 24·94 |
| ... | ... | ... | 10·62 | ·08 | 1·90 | ·21 | ·95 | 13·76 | 11·92 |
| ... | ·03 | ... | 10·84 | ·03 | 1·02 | ·23 | ·49 | 12·65 | 13·10 |
| ... | ... | ... | 12·65 | ·04 | 2·65 | ·33 | 1·03 | 16·71 | 18·13 |
| ... | ·08 | .. | 13·87 | ·01 | 1·24 | ·36 | ·47 | 16·02 | 13·73 |
| ·30 | ·09 | ... | 16·09 | ·03 | ·33 | ·20 | ·35 | 18·29 | 13·99 |
| ·02 | ·02 | ... | 12·40 | ·08 | ·17 | ·23 | ·42 | 13·34 | 16·46 |
| ·05 | ... | ... | 12·09 | ·03 | ·19 | ·23 | ·20 | 12·79 | 12·46 |
| ·40 | ·23 | ·71 | 11·84 | 1·20 | 4·26 | ·40 | 8·14 | 27·18 | 25·58 |

ANNUAL FORM

| 1 | 2 | 3 | 4 | | | |
|---|---|---|---|---|---|---|
| | | | Births. | | | |
| No. | Districts and Towns. | Population according to Census of 1921. | Male. | Female. | Total. | Birth-rate. |
| | B.—TOWNS. | | | | | |
| | *East Khándesh District.* | | | | | |
| 1 | Jalgaon ... .. ... | 23,696 | 362 | 282 | 644 | 27·18 |
| 2 | Bhusáwal ... ... ... | 24,933 | 391 | 348 | 739 | 29·64 |
| 3 | Chopda ... ... ... | 16,930 | 248 | 193 | 441 | 26·04 |
| 4 | Dharangaon ... ... ... | 14,824 | 315 | 266 | 581 | 39·19 |
| 5 | Párola ... ... ... | 12,079 | 283 | 261 | 544 | 45·04 |
| 6 | Amalner ... ... ... | 17,068 | 194 | 135 | 329 | 19·28 |
| 7 | Erandol ... ... ... | 12,489 | 305 | 256 | 561 | 44·92 |
| 8 | Nasirabad ... ... ... | 12,188 | 358 | 291 | 649 | 53·25 |
| 9 | Chálisgaon ... ... ... | 11,990 | 242 | 221 | 463 | 38·62 |
| 10 | Yawal ... ... ... | 10,888 | 126 | 103 | 229 | 21·03 |
| | *West Khandesh District.* | | | | | |
| 11 | Dhulia ... ... ... | 30,061 | 642 | 612 | 1,254 | 41·72 |
| 12 | Nandurbár ... ... ... | 13,842 | 345 | 287 | 632 | 45·65 |
| | *Nasik District.* | | | | | |
| 13 | Násik ... ... ... | 42,715 | 677 | 589 | 1,266 | 29·64 |
| 14 | Yeola ... ... ... | 13,911 | 192 | 160 | 352 | 25·30 |
| 15 | Málegaon ... ... ... | 23,711 | 426 | 353 | 779 | 32·85 |
| 16 | Igatpuri ... ... ... | 9,977 | 119 | 129 | 248 | 24·86 |
| 17 | Manmád ... ... ... | 11,866 | 154 | 116 | 270 | 22·75 |
| 18 | Trimbak ... ... ... | 4,538 | 83 | 65 | 148 | 32·61 |
| 19 | Deoláli Cantonment ... ... ... | 12,640 | 11 | 14 | 25 | 1·98 |
| | *Thana District.* | | | | | |
| 20 | Thána ... ... ... | 23,116 | 209 | 189 | 398 | 18·00 |
| 21 | Bhiwandi ... ... ... | 12,188 | 235 | 183 | 418 | 34·29 |
| 22 | Kalyán ... ... ... | 17,573 | 279 | 251 | 530 | 30·16 |
| 23 | Bassein ... ... ... | 10,364 | 125 | 110 | 235 | 22·67 |
| | *Bombay Suburban District.* | | | | | |
| 24 | Bándra ... ... ... | 28,738 | 364 | 350 | 714 | 24·84 |
| 25 | Kurla ... ... ... | 26,059 | 294 | 299 | 593 | 22·76 |
| 26 | Santa Cruz Cantonment ... ... | 4,701 | 12 | 9 | 21 | 4·46 |

No. VI—*contd.*

| 5 | 6 | 7 | 8 | 9 | 10 | 11 Injuries (*continued on next page*). | |
|---|---|---|---|---|---|---|---|
| | | | | | | Suicide. | |
| Cholera. | Small-pox. | Plague. | Fevers. | Dysentery and Diarrhœa. | Respiratory Diseases. | Male. | Female. |
| 44 | ... | ... | 177 | 34 | 84 | ... | ... |
| 11 | 1 | ... | 225 | 19 | 48 | ... | ... |
| 22 | ... | ... | 114 | 15 | 29 | ... | ... |
| 38 | ... | ... | 127 | 25 | 88 | ... | ... |
| 16 | 4 | ... | 142 | 13 | 70 | ... | ... |
| 6 | ... | ... | 104 | 8 | 38 | ... | ... |
| 20 | ... | ... | 125 | 44 | 65 | ... | ... |
| 9 | ... | ... | 206 | 45 | 80 | 1 | ... |
| 27 | 2 | ... | 181 | 8 | 64 | ... | 1 |
| ... | ... | ... | 41 | 6 | 53 | ... | ... |
| 9 | 1 | ... | 229 | 46 | 216 | 2 | ... |
| 13 | ... | ... | 73 | 36 | 83 | ... | ... |
| 14 | 38 | 63 | 176 | 78 | 444 | 1 | ... |
| 13 | ... | 1 | 388 | 18 | 105 | ... | ... |
| 76 | 316 | ... | 183 | 50 | 92 | ... | ... |
| ... | 1 | 1 | 119 | 4 | 37 | ... | ... |
| ... | ... | 4 | 58 | 8 | 36 | ... | ... |
| 2 | 2 | ... | 19 | 5 | 16 | ... | ... |
| ... | 2 | 5 | 12 | 9 | 27 | ... | ... |
| ... | 5 | ... | 249 | 19 | 79 | 1 | 2 |
| ... | 1 | 55 | 129 | 41 | 89 | ... | ... |
| 13 | 16 | ... | 66 | 19 | 145 | ... | ... |
| ... | ... | ... | 32 | 15 | 42 | ... | ... |
| 1 | 1 | 3 | 52 | 45 | 125 | 1 | ... |
| ... | ... | 1 | 67 | 38 | 155 | 3 | ... |
| ... | ... | ... | 4 | 2 | ... | ... | ... |

ANNUAL FORM

| 1 | 2 | 11 INJURIES—*contd.* | | | | 12 | 13 |
|---|---|---|---|---|---|---|---|
| No. | Districts and Towns. | Wounding or Accident. | Snake-bite, or killed by wild beasts. | Rabies. | Total. | All other causes. | Total deaths from all causes. |
| | B.—TOWNS. | | | | | | |
| | *East Khandesh District.* | | | | | | |
| 1 | Jalgaon ... ... ... | 3 | ... | ... | 3 | 182 | 524 |
| 2 | Bhusawal ... ... ... | 10 | ... | ... | 10 | 132 | 446 |
| 3 | Chopda ... ... ... ... | | ... | ... | ... | 62 | 242 |
| 4 | Dharangaon ... ... ... | 4 | ... | ... | 4 | 139 | 421 |
| 5 | Parola ... ... ... | 2 | ... | ... | 2 | 157 | 404 |
| 6 | Amalner ... ... ... | 3 | ... | ... | 3 | 29 | 188 |
| 7 | Erandol ... ... ... | 1 | ... | ... | 1 | 126 | 381 |
| 8 | Nasirabad ... ... ... | 3 | ... | ... | 4 | 102 | 446 |
| 9 | Chalisgaon ... ... ... | 6 | 1 | 1 | 9 | 24 | 315 |
| 10 | Yawal ... ... ... | 2 | ... | ... | 2 | 36 | 138 |
| | *West Khandesh District.* | | | | | | |
| 11 | Dhulia ... ... ... | 15 | ... | ... | 17 | 331 | 849 |
| 12 | Nandurbar ... ... ... | 7 | 2 | ... | 9 | 162 | 376 |
| | *Nasik District.* | | | | | | |
| 13 | Nasik ... ... ... | 16 | 1 | 2 | 20 | 566 | 1,399 |
| 14 | Yeola ... ... ... | 5 | ... | ... | 5 | 52 | 532 |
| 15 | Malegaon ... ... ... | 7 | ... | ... | 7 | 121 | 845 |
| 16 | Igatpuri ... ... ... | 10 | ... | ... | 10 | 40 | 212 |
| 17 | Manmad ... ... ... | 3 | ... | ... | 3 | 43 | 152 |
| 18 | Trimbak ... ... ... | 2 | ... | ... | 2 | 37 | 83 |
| 19 | Deolali Cantonment ... ... | 3 | ... | ... | 3 | 39 | 97 |
| | *Thana District.* | | | | | | |
| 20 | Thana ... ... ... | 7 | 1 | ... | 11 | 73 | 436 |
| 21 | Bhiwandi ... ... ... | 5 | ... | ... | 5 | 86 | 406 |
| 22 | Kalyan ... ... ... | 11 | 1 | 2 | 14 | 132 | 405 |
| 23 | Bassein ... ... ... | 2 | 1 | 3 | 6 | 91 | 186 |
| | *Bombay Suburban District.* | | | | | | |
| 24 | Bandra ... ... ... | 9 | ... | ... | 10 | 223 | 460 |
| 25 | Kurla ... ... ... | 7 | 1 | ... | 11 | 207 | 479 |
| 26 | Santa Cruz Cantonment ... ... ... | | ... | ... | ... | 1 | 7 |

No. VI—*contd.*

14

RATIO OF DEATHS PER 1,000 OF POPULATION.

| Cholera. | Small-pox. | Plague. | Fevers. | Dysentery and Diarrhœa. | Respiratory Diseases. | Injuries. | All other causes. | From all causes. | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | For the year. | Mean of previous five years. |
| 1·86 | ... | ... | 7·15 | 1·44 | 3·55 | ·13 | 7·68 | 22·11 | 22·62 |
| ·44 | ·04 | ... | 9·02 | ·76 | 1·92 | ·40 | 5·29 | 17·88 | 22·14 |
| 1·29 | ... | ... | 6·74 | ·89 | 1·71 | ... | 3·66 | 14·29 | 20·38 |
| 2·56 | ... | ... | 8·57 | 1·69 | 5·93 | ·27 | 9·37 | 28·39 | 32·11 |
| 1·33 | ·33 | ... | 11·76 | 1·08 | 5·60 | ·16 | 12·99 | 33·45 | 33·03 |
| ·35 | ... | ... | 6·09 | ·47 | 2·23 | ·18 | 1·69 | 11·01 | 17·86 |
| 1·60 | ... | ... | 10·01 | 3·53 | 5·20 | ·08 | 10·09 | 30·50 | 30·27 |
| ·75 | ... | ... | 16·90 | 3·68 | 6·56 | ·33 | 8·37 | 36·59 | 38·39 |
| 2·25 | ·17 | ... | 15·09 | ·67 | 5·34 | ·75 | 2·00 | 26·27 | 23·79 |
| ... | ... | ... | 3·77 | ·55 | 4·87 | ·18 | 3·31 | 12·68 | 19·53 |
| ·29 | ·03 | ... | 7·62 | 1·53 | 7·19 | ·57 | 11·01 | 28·24 | 22·58 |
| ·94 | ... | ... | 5·27 | 2·60 | 6·00 | ·65 | 11·70 | 27·16 | 25·43 |
| ·33 | ·89 | 1·47 | 4·13 | 1·82 | 10·40 | ·47 | 13·24 | 32·75 | 31·25 |
| ·94 | ... | ·07 | 24·30 | 1·29 | 7·54 | ·36 | 3·74 | 38·24 | 32·27 |
| 3·21 | 13·33 | ... | 7·72 | 2·10 | 3·88 | ·29 | 5·10 | 35·63 | 27·29 |
| ... | ·10 | ·10 | 11·93 | ·40 | 3·71 | 1·00 | 4·01 | 21·25 | 17·64 |
| ... | ... | ·34 | 4·89 | ·67 | 3·03 | ·25 | 3·63 | 12·81 | 13·31 |
| ·44 | ·44 | ... | 4·19 | 1·10 | 3·53 | ·44 | 8·15 | 18·29 | 17·85 |
| ... | ·16 | ·40 | ·95 | ·71 | 2·13 | ·24 | 3·08 | 7·67 | 5·85 |
| ... | ·22 | ... | 11·26 | ·86 | 3·57 | ·50 | 3·30 | 19·71 | 19·71 |
| ... | ·08 | 4·51 | 10·58 | 3·36 | 7·30 | ·41 | 7·06 | 33·31 | 29·87 |
| ·74 | ·91 | ... | 3·76 | 1·08 | 8·25 | ·80 | 7·51 | 23·05 | 22·71 |
| ... | ... | ... | 3·09 | 1·45 | 4·05 | ·58 | 8·78 | 17·95 | 22·29 |
| ·03 | ·03 | ·10 | 1·81 | 1·57 | 4·35 | ·35 | 7·76 | 16·00 | 15·97 |
| ... | ... | ·04 | 2·57 | 1·46 | 5·94 | ·42 | 7·95 | 18·38 | 21·10 |
| ... | ... | ... | ·85 | ·43 | ... | ... | ·21 | 1·49 | 1·28 |

| 1 | 2 | 3 | 4 | | | |
|---|---|---|---|---|---|---|
| | | | Births. | | | |
| No. | Districts and Towns. | Population according to Census of 1921. | Male. | Female. | Total. | Birth-rate. |
| | B.—TOWNS—*contd.* | | | | | |
| | *Kolaba District.* | | | | | |
| 27 | Alibág ... ... ... | 5,253 | 73 | 89 | 162 | 30·88 |
| 28 | Panwel ... ... ... | 8,622 | 109 | 89 | 198 | 22·96 |
| 29 | Mahád ... ... ... | 7,102 | 68 | 66 | 134 | 18·62 |
| 30 | Uran ... ... ... | 8,135 | 65 | 50 | 115 | 14·14 |
| 31 | City of Bombay ... ... ... | 1,148,815 | 12,289 | 11,334 | 23,623 | 20·56 |
| | *Ahmednagar District.* | | | | | |
| 32 | Ahmednagar ... ... ... | 33,138 | 596 | 517 | 1,113 | 33·59 |
| 33 | Sangamner ... ... ... | 12,787 | 200 | 187 | 387 | 30·84 |
| 34 | Ahmednagar Cantonment ... ... | 10,997 | 147 | 109 | 256 | 23·28 |
| | *Poona District.* | | | | | |
| 35 | Poona City ... ... ... | 133,122 | 1,590 | 1,395 | 2,985 | 22·42 |
| 36 | Poona Suburban ... ... ... | 13,971 | 37 | 25 | 62 | 4·44 |
| 37 | Bárámati ... ... ... | 11,905 | 221 | 217 | 438 | 36·79 |
| 38 | Khed ... ... ... | 7,013 | 101 | 108 | 209 | 29·80 |
| 39 | Lonávla ... ... ... | 10,471 | 129 | 128 | 257 | 24·54 |
| 40 | Junnár ... ... ... | 7,376 | 155 | 129 | 284 | 38·50 |
| 41 | Poona Cantonment ... ... ... | 25,498 | 105 | 80 | 185 | 7·26 |
| 42 | Kirkee do. ... ... ... | 7,991 | 51 | 61 | 112 | 14·01 |
| | *Sholapur District.* | | | | | |
| 43 | Sholápur ... ... ... | 119,347 | 2,467 | 2,308 | 4,775 | 40·01 |
| 44 | Bársi ... ... ... | 22,074 | 357 | 348 | 705 | 31·93 |
| 45 | Pandharpur ... ... ... | 25,210 | 509 | 447 | 956 | 37·92 |
| | *Satara District.* | | | | | |
| 46 | Sátara .. ... ... | 22,454 | 201 | 179 | 380 | 16·92 |
| 47 | Wái ... ... ... | 10,208 | 161 | 157 | 318 | 31·15 |
| 48 | Karád ... ... ... | 11,255 | 118 | 97 | 215 | 19·10 |
| 49 | Ashta ... ... ... | 9,016 | 150 | 128 | 278 | 30·83 |
| 50 | Islámpur ... ... ... | 7,915 | 128 | 125 | 253 | 31·96 |
| | *Ratnagiri District.* | | | | | |
| 51 | Ratnágiri ... ... ... | 18,286 | 244 | 246 | 490 | 26·79 |
| 52 | Vengurla ... ... ... | 19,126 | 313 | 333 | 646 | 33·78 |
| 53 | Málwan ... ... ... | 22,213 | 328 | 274 | 602 | 27·10 |
| 54 | Chiplun ... ... ... | 11,005 | 181 | 147 | 328 | 29·80 |

No. VI—*contd.*

| 5 | 6 | 7 | 8 | 9 | 10 | 11 | |
|---|---|---|---|---|---|---|---|
| | | | | | | Injuries. | |
| Cholera. | Small-pox. | Plague. | Fevers. | Dysentery and Diarrhœa. | Respiratory Diseases. | Suicide. | |
| | | | | | | Male. | Female. |
| ... | 7 | ... | 37 | 5 | 24 | ... | ... |
| ... | 7 | ... | 17 | 6 | 52 | ... | ... |
| ... | ... | ... | 20 | 6 | 32 | ... | ... |
| ... | ... | ... | 32 | 5 | 10 | ... | ... |
| 82 | 595 | 257 | 2,200 | 1,154 | 11,978 | 66 | 23 |
| 7 | 106 | 2 | 85 | 46 | 214 | 1 | ... |
| 5 | 6 | ... | 79 | 14 | 32 | ... | ... |
| ... | 1 | ... | 53 | 15 | 71 | ... | ... |
| 33 | 41 | 15 | 855 | 288 | 1,878 | 6 | 3 |
| 2 | 1 | 2 | 110 | 25 | 25 | ... | ... |
| 30 | ... | 2 | 106 | 22 | 43 | 3 | ... |
| ... | 1 | ... | 48 | 3 | 56 | ... | ... |
| ... | 6 | ... | 87 | 11 | 95 | ... | ... |
| ... | ... | ... | 27 | 6 | 66 | ... | ... |
| ... | ... | ... | 102 | 25 | 85 | 1 | ... |
| ... | ... | ... | 4 | 13 | 94 | ... | 1 |
| 10 | 319 | 3 | 1,911 | 185 | 458 | 6 | 1 |
| 30 | 2 | ... | 400 | 81 | 57 | 1 | ... |
| 125 | 3 | 3 | 486 | 93 | 252 | 2 | 1 |
| 20 | 46 | 264 | 111 | 42 | 83 | ... | ... |
| 32 | 19 | 78 | 66 | 10 | 38 | ... | ... |
| 10 | 1 | 542 | 11 | 10 | 39 | ... | 1 |
| ... | ... | ... | 35 | 16 | 7 | 1 | ... |
| ... | 7 | 2 | 27 | 24 | 61 | 1 | ... |
| 2 | 34 | ... | 93 | 6 | 71 | ... | ... |
| ... | 3 | 41 | 92 | 34 | 104 | 1 | ... |
| ... | ... | ... | 80 | 38 | 76 | ... | ... |
| ... | 6 | ... | 131 | 16 | 24 | ... | ... |

| 1 | 2 | 11 INJURIES—*contd.* | | | | 12 | 13 |
|---|---|---|---|---|---|---|---|
| No. | Districts and Towns. | Wounding or Accident. | Snake-bite, or killed by wild beasts. | Rabies. | Total. | All other causes. | Total deaths from all causes. |
| | B.—TOWNS—*contd.* | | | | | | |
| | *Kolaba District.* | | | | | | |
| 27 | Alibag ... ... ... | 5 | ... | 2 | 7 | 42 | 122 |
| 28 | Panwel ... ... ... | ... | 3 | ... | 3 | 48 | 133 |
| 29 | Mahad ... ... ... | 3 | 1 | ... | 4 | 52 | 114 |
| 30 | Uran ... ... ... | ... | ... | ... | ... | 21 | 68 |
| 31 | City of Bombay ... ... ... | 553 | 1 | ... | 643 | 10,248 | 27,107 |
| | *Ahmednagar District.* | | | | | | |
| 32 | Ahmednagar ... ... ... | 8 | ... | 2 | 10 | 259 | 729 |
| 33 | Sangamner ... ... ... | 4 | ... | ... | 4 | 106 | 247 |
| 34 | Ahmednagar Cantonment ... ... | 9 | 1 | ... | 10 | 69 | 219 |
| | *Poona District.* | | | | | | |
| 35 | Poona City ... ... ... | 24 | ... | 1 | 34 | 1,928 | 5,072 |
| 36 | Poona Suburban ... ... ... | 2 | ... | ... | 2 | 59 | 226 |
| 37 | Baramati ... ... ... | 6 | ... | ... | 9 | 127 | 339 |
| 38 | Khed ... ... ... | ... | ... | ... | ... | 81 | 184 |
| 39 | Lonavla ... ... ... | 12 | ... | ... | 12 | 72 | 233 |
| 40 | Junnar ... ... ... | 2 | 1 | ... | 3 | 59 | 161 |
| 41 | Poona Cantonment ... ... | 3 | ... | ... | 4 | 136 | 352 |
| 42 | Kirkee do. ... ... ... | 2 | ... | ... | 3 | 132 | 246 |
| | *Sholapur District.* | | | | | | |
| 43 | Sholapur ... ... ... | 59 | 4 | 6 | 76 | 1,322 | 4,234 |
| 44 | Barsi ... ... ... | 12 | ... | 1 | 14 | 368 | 902 |
| 45 | Pandharpur ... ... ... | 14 | 1 | 2 | 20 | 578 | 1,560 |
| | *Satara District.* | | | | | | |
| 46 | Satara ... ... ... | 17 | ... | ... | 17 | 260 | 843 |
| 47 | Wai ... ... ... | 3 | 2 | 1 | 6 | 96 | 352 |
| 48 | Karad ... ... ... | 1 | 2 | 1 | 5 | 106 | 724 |
| 49 | Ashta ... ... ... | 8 | ... | ... | 9 | 74 | 141 |
| 50 | Islampur ... ... ... | 11 | ... | 1 | 13 | 43 | 177 |
| | *Ratnagiri District.* | | | | | | |
| 51 | Ratnagiri ... ... ... | 4 | 1 | ... | 5 | 170 | 381 |
| 52 | Vengurla ... ... ... | 2 | ... | ... | 3 | 264 | 541 |
| 53 | Malwan ... ... ... | 3 | 3 | ... | 6 | 251 | 451 |
| 54 | Chiplun ... ... ... | 3 | 2 | ... | 5 | 54 | 236 |

No. VI—*contd.*

14

RATIO OF DEATHS PER 1,000 OF POPULATION.

| Cholera. | Small-pox. | Plague. | Fevers. | Dysentery and Diarrhœa. | Respiratory Diseases. | Injuries. | All other causes. | From all causes. | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | For the year. | Mean of previous five years. |
| ... | 1·33 | ... | 7·04 | ·95 | 4·57 | 1·33 | 8·00 | 23·22 | 21·32 |
| ... | ·81 | ... | 1·98 | ·69 | 6·02 | ·35 | 5·57 | 15·42 | 20·64 |
| ... | ... | ... | 2·78 | ·83 | 4·45 | ·56 | 7·23 | 15·85 | 17·94 |
| ... | ... | ... | 3·94 | ·61 | 1·23 | ... | 2·58 | 8·36 | 13·77 |
| ·38 | ·52 | ·22 | 1·91 | 1·60 | 10·43 | ·56 | 8·92 | 23·59 | 29·03 |
| ·21 | 3·20 | ·06 | 2·56 | 1·39 | 6·46 | ·30 | 7·31 | 21·99 | 17·70 |
| ·47 | ·47 | ... | 6·20 | 1·10 | 2·51 | ·31 | 8·33 | 19·39 | 16·89 |
| ... | ·09 | ... | 4·82 | 1·36 | 6·46 | ·91 | 6·27 | 19·91 | 17·69 |
| ·25 | ·31 | ·11 | 6·42 | 2·16 | 14·11 | ·26 | 14·48 | 38·10 | 40·65 |
| ·14 | ·07 | ·14 | 7·88 | 1·79 | 1·79 | ·14 | 4·22 | 16·17 | 21·60 |
| 2·52 | ... | ·17 | 8·90 | 1·85 | 3·61 | ·76 | 10·67 | 28·48 | 24·93 |
| ... | ·14 | ... | 6·13 | ·43 | 7·99 | ... | 11·55 | 26·24 | 19·02 |
| ... | ·57 | ... | 8·32 | 1·05 | 9·06 | 1·15 | 6·88 | 27·03 | 25·52 |
| ... | ... | ... | 3·66 | ·82 | 8·95 | ·40 | 8·00 | 21·83 | 22·86 |
| ... | ... | ... | 4·00 | ·97 | 3·34 | ·16 | 5·34 | 13·81 | 13·08 |
| ... | ... | ... | ·50 | 1·62 | 11·77 | ·37 | 16·52 | 30·78 | 30·03 |
| ·08 | 2·67 | ·03 | 16·02 | 1·55 | 3·83 | ·64 | 11·08 | 35·90 | 36·31 |
| 1·36 | ·09 | ... | 18·13 | 1·40 | 2·58 | ·63 | 16·67 | 40·86 | 39·69 |
| 4·96 | ·12 | ·12 | 19·28 | 3·69 | 10·00 | ·79 | 22·92 | 61·88 | 55·44 |
| ·89 | 2·05 | 11·76 | 4·94 | 1·87 | 3·69 | ·76 | 11·58 | 37·54 | 31·67 |
| 3·83 | 1·85 | 7·64 | 6·46 | ·98 | 3·72 | ·59 | 9·41 | 34·48 | 21·61 |
| ·89 | ·09 | 48·16 | ·98 | ·88 | 3·47 | ·44 | 9·42 | 64·33 | 20·20 |
| ... | ... | ... | 3·88 | 1·77 | ·78 | ·99 | 8·21 | 15·63 | 19·19 |
| ... | ·89 | ·25 | 3·41 | 3·03 | 7·71 | 1·64 | 5·43 | 22·36 | 21·55 |
| ·11 | 1·86 | ... | 5·08 | ·32 | 3·89 | ·27 | 9·30 | 20·83 | 16·14 |
| ... | ·16 | 2·14 | 4·80 | 1·62 | 5·43 | ·15 | 13·79 | 28·29 | 24·18 |
| ... | ... | .... | 3·60 | 1·71 | 3·42 | ·27 | 11·30 | 20·30 | 19·93 |
| .... | 1·55 | ... | 11·90 | 1·46 | 2·18 | ·45 | 4·90 | 21·44 | 18·41 |

| 1 | 2 | 3 | 4 | | | |
|---|---|---|---|---|---|---|
| | | | Births. | | | |
| No. | Districts and Towns. | Population according to Census of 1921. | Male. | Female. | Total. | Birth-rate. |
| | B.—TOWNS—*contd.* | | | | | |
| | *Belgaum District.* | | | | | |
| 55 | Belgaum ... ... ... | 36,214 | 601 | 524 | 1,125 | 31·07 |
| 56 | Gokak ... ... ... | 9,989 | 176 | 162 | 338 | 33·84 |
| 57 | Athni ... ... ... | 13,538 | 177 | 147 | 324 | 23·93 |
| 58 | Nipani ... ... ... | 11,878 | 219 | 215 | 434 | 36·54 |
| 59 | Belgaum Cantonment ... ... | 6,880 | 39 | 32 | 71 | 10·32 |
| | *Dharwar District.* | | | | | |
| 60 | Dharwar ... ... ... | 34,327 | 651 | 590 | 1,241 | 36·15 |
| 61 | Hubli ... ... ... | 69,140 | 1,032 | 951 | 1,983 | 28·68 |
| 62 | Gadag-Bettigeri ... ... ... | 41,158 | 792 | 714 | 1,506 | 36·59 |
| 63 | Ranebennur ... ... ... | 13,930 | 276 | 329 | 605 | 43·43 |
| 64 | Nawalgund ... ... ... | 7,089 | 112 | 87 | 199 | 28·07 |
| | *Bijapur District.* | | | | | |
| 65 | Bijapur ... ... ... | 32,471 | 612 | 539 | 1,151 | 35·45 |
| 66 | Bagalkot ... ... ... | 19,471 | 402 | 391 | 793 | 40·73 |
| 67 | Guledgud ... ... ... | 14,760 | 336 | 319 | 655 | 44·38 |
| 68 | Ilkal ... ... ... | 11,856 | 230 | 192 | 422 | 35·59 |
| | *Kanara District.* | | | | | |
| 69 | Karwar ... ... ... | 14,463 | 157 | 158 | 315 | 21·78 |
| 70 | Kumta ... ... ... | 14,291 | 192 | 162 | 354 | 24·77 |
| 71 | Gokarn ... ... ... | 8,307 | 120 | 120 | 240 | 28·89 |
| 72 | Honawar ... ... ... | 7,035 | 140 | 111 | 251 | 35·68 |
| 73 | Bhatkal ... ... ... | 7,134 | 138 | 134 | 272 | 38·13 |
| | *Surat District.* | | | | | |
| 74 | Surat ... ... ... | 117,424 | 2,525 | 2,181 | 4,706 | 40·07 |
| 75 | Bulsar ... ... ... | 19,681 | 285 | 237 | 522 | 26·52 |
| 76 | Rander ... ... ... | 10,547 | 159 | 164 | 323 | 30·63 |
| | *Broach District.* | | | | | |
| 77 | Broach ... ... ... | 42,626 | 944 | 992 | 1,936 | 45·42 |
| 78 | Jambusar ... ... ... | 10,217 | 253 | 226 | 479 | 46·88 |
| 79 | Ankleshwar ... ... ... | 11,756 | 210 | 207 | 417 | 35·47 |

No. VI—*contd.*

| 5 | 6 | 7 | 8 | 9 | 10 | 11 | |
|---|---|---|---|---|---|---|---|
| | | | | | | Injuries. | |
| Cholera. | Small-pox. | Plague. | Fevers. | Dysentery and Diarrhœa. | Respiratory Diseases. | Suicide. | |
| | | | | | | Male. | Female. |
| 1 | 1 | 30 | 177 | 55 | 204 | ... | ... |
| ... | ... | ... | 66 | 33 | 45 | ... | ... |
| ... | ... | ... | 82 | 8 | 68 | ... | 1 |
| ... | ... | ... | 103 | 6 | 50 | ... | ... |
| ... | ... | ... | 23 | 6 | 9 | ... | ... |
| 2 | 2 | 15 | 213 | 50 | 202 | 1 | ... |
| ... | 10 | 789 | 339 | 38 | 258 | 3 | 2 |
| 1 | ... | 262 | 509 | 75 | 325 | 4 | 5 |
| ... | 7 | 45 | 48 | 11 | 80 | ... | 1 |
| ... | 6 | 3 | 36 | 13 | 28 | ... | ... |
| 1 | 1 | ... | 154 | 40 | 119 | 2 | ... |
| ... | ... | 2 | 136 | 33 | 89 | ... | ... |
| ... | ... | 2 | 165 | 1 | 58 | ... | ... |
| ... | ... | ... | 111 | 1 | 66 | ... | ... |
| ... | ... | 34 | 35 | 12 | 27 | ... | ... |
| ... | ... | 2 | 81 | 15 | 33 | ... | ... |
| ... | ... | ... | 73 | 32 | 26 | ... | ... |
| ... | 7 | ... | 42 | 14 | 6 | ... | ... |
| ... | ... | ... | 57 | 56 | 25 | ... | ... |
| 1 | 3 | ... | 344 | 367 | 1,714 | 1 | ... |
| ... | 2 | 124 | 53 | 14 | 135 | ... | ... |
| ... | ... | ... | 117 | ... | 87 | ... | ... |
| .. | ... | ... | 236 | 29 | 317 | ... | 1 |
| ... | ... | ... | 118 | 4 | 106 | ... | ... |
| ... | ... | ... | 212 | 4 | 60 | 1 | ... |

ANNUAL FORM

| 1 | 2 | 11 | | | | 12 | 13 |
|---|---|---|---|---|---|---|---|
| | | INJURIES—*contd.* | | | | | |
| No | Districts and Towns. | Wounding or accident. | Snake-bite, or killed by wild beasts. | Rabies. | Total. | All other causes. | Total deaths from all causes. |
| | B.—TOWNS—*contd.* | | | | | | |
| | *Belgaum District.* | | | | | | |
| 55 | Belgaum ... ... ... | 19 | ... | ... | 19 | 437 | 924 |
| 56 | Gokak ... ... ... | 2 | ... | ... | 2 | 92 | 238 |
| 57 | Athni ... ... ... | 9 | ... | ... | 10 | 33 | 201 |
| 58 | Nipani ... ... ... | 5 | ... | ... | 5 | 52 | 216 |
| 59 | Belgaum Cantonment ... ... | 1 | ... | ... | 1 | 41 | 80 |
| | *Dharwar District.* | | | | | | |
| 60 | Dharwar ... ... ... | 9 | 1 | ... | 11 | 404 | 899 |
| 61 | Hubli ... ... ... | 19 | ... | 3 | 27 | 785 | 2,246 |
| 62 | Gadag-Bettigeri ... ... ... | 12 | 2 | 2 | 25 | 535 | 1,732 |
| 63 | Ranebennur ... ... ... | 9 | 1 | ... | 11 | 235 | 437 |
| 64 | Nawalgund ... ... ... | 1 | ... | ... | 1 | 73 | 160 |
| | *Bijapur District.* | | | | | | |
| 65 | Bijapur ... ... ... | 12 | 2 | ... | 16 | 430 | 761 |
| 66 | Bagalkot ... ... ... | 9 | ... | 1 | 10 | 310 | 580 |
| 67 | Guledgud ... ... ... | 6 | ... | ... | 6 | 327 | 559 |
| 68 | Ilkal ... ... ... | 4 | ... | ... | 4 | 279 | 461 |
| | *Kanara District.* | | | | | | |
| 69 | Karwar ... ... ... | 5 | 1 | 1 | 7 | 121 | 236 |
| 70 | Kumta ... ... ... | 3 | 1 | 1 | 5 | 101 | 237 |
| 71 | Gokarn ... ... ... | 5 | ... | ... | 5 | 73 | 199 |
| 72 | Honawar ... ... ... | ... | ... | 1 | 1 | 43 | 113 |
| 73 | Bhatkal ... ... ... | ... | ... | ... | ... | 61 | 199 |
| | *Surat District.* | | | | | | |
| 74 | Surat ... ... ... | 42 | ... | 2 | 45 | 1,857 | 4,331 |
| 75 | Bulsar ... ... ... | 8 | ... | ... | 8 | 142 | 478 |
| 76 | Rander ... ... ... | ... | ... | ... | ... | 52 | 256 |
| | *Broach District.* | | | | | | |
| 77 | Broach ... ... ... | 30 | 1 | ... | 32 | 623 | 1,237 |
| 78 | Jambusar ... ... ... | 3 | 1 | ... | 4 | 73 | 305 |
| 79 | Ankleshwar ... ... ... | 2 | ... | ... | 3 | 39 | 318 |

No. VI—*contd.*

14

RATIO OF DEATHS PER 1,000 OF POPULATION.

| Cholera. | Small-pox. | Plague. | Fevers. | Dysentery and Diarrhœa. | Respiratory Diseases. | Injuries. | All other causes. | From all causes. For the year. | From all causes. Mean of previous five years. |
|---|---|---|---|---|---|---|---|---|---|
| ·03 | ·03 | ·83 | 4·89 | 1·53 | 5·63 | ·52 | 12·07 | 25·52 | 26·54 |
| ... | ... | ... | 6·61 | 3·30 | 4·51 | ·20 | 9·21 | 23·83 | 30·28 |
| ... | ... | ... | 6·05 | ·59 | 5·02 | ·74 | 2·44 | 14·85 | 18·91 |
| ... | ... | ... | 8·67 | ·51 | 4·21 | ·42 | 4·38 | 18·18 | 21·55 |
| ... | ... | ... | 3·34 | ·87 | 1·31 | ·15 | 5·96 | 11·63 | 11·34 |
| ·06 | ·06 | ·44 | 6·21 | 1·46 | 5·88 | ·32 | 11·77 | 26·19 | 28·02 |
| ... | ·14 | 11·41 | 4·90 | ·55 | 3·73 | ·39 | 11·35 | 32·48 | 26·27 |
| ·02 | ... | 6·37 | 12·37 | 1·82 | 7·90 | ·61 | 13·00 | 42·08 | 32·97 |
| ... | ·50 | 3·23 | 3·45 | ·79 | 5·74 | ·79 | 16·87 | 31·37 | 41·56 |
| ... | ·85 | ·42 | 5·08 | 1·83 | 3·95 | ·14 | 10·30 | 22·57 | 23·85 |
| ·03 | ·03 | ... | 4·74 | 1·23 | 3·66 | ·49 | 13·24 | 23·44 | 25·62 |
| ... | ... | ·10 | 6·98 | 1·69 | 4·57 | ·51 | 15·92 | 29·79 | 34·98 |
| ... | ... | ·14 | 11·18 | ·07 | 3·93 | ·41 | 22·15 | 37·87 | 35·77 |
| ... | ... | ... | 9·36 | ·08 | 5·57 | ·34 | 23·65 | 38·88 | 41·08 |
| ... | ... | 2·35 | 2·42 | ·83 | 1·87 | ·48 | 8·37 | 16·32 | 15·56 |
| ... | ... | ·14 | 5·67 | 1·05 | 2·31 | ·35 | 7·07 | 16·58 | 17·28 |
| ... | ... | ... | 8·79 | 2·65 | 3·13 | ·60 | 8·79 | 23·96 | 20·95 |
| ... | 1·00 | ... | 5·97 | 1·99 | ·85 | ·14 | 6·11 | 16·06 | 21·46 |
| ... | ... | ... | 7·99 | 7·85 | 3·50 | ... | 8·55 | 27·89 | 23·31 |
| ·01 | ·03 | ... | 2·93 | 3·13 | 14·59 | ·38 | 15·81 | 36·88 | 36·29 |
| ... | ·10 | 5·30 | 2·69 | ·71 | 6·86 | ·41 | 7·22 | 24·29 | 18·36 |
| ... | ... | ... | 11·09 | ... | 8·26 | ... | 4·93 | 24·28 | 24·12 |
| ... | ... | ... | 5·53 | ·67 | 7·46 | ·75 | 14·61 | 29·02 | 30·08 |
| ... | ... | ... | 11·55 | ·39 | 10·37 | ·39 | 7·15 | 29·85 | 31·14 |
| ... | ... | ... | 18·02 | ·34 | 5·11 | ·26 | 3·32 | 27·05 | 29·94 |

| 1 | 2 | 3 | 4 | | | |
|---|---|---|---|---|---|---|
| | | | Births. | | | |
| No. | Districts and Towns. | Population according to Census of 1921. | Male. | Female. | Total. | Birth-rate. |
| | B.—TOWNS—*contd.* | | | | | |
| | *Kaira District.* | | | | | |
| 80 | Kaira ... | 8,277 | 112 | 104 | 216 | 26·09 |
| 81 | Mehmedabad ... | 6,236 | 152 | 113 | 265 | 42·49 |
| 82 | Nadiad ... | 31,919 | 577 | 539 | 1,116 | 34·96 |
| 83 | Borsad ... | 12,113 | 301 | 293 | 594 | 49·03 |
| 84 | Anand ... | 11,024 | 181 | 145 | 326 | 29·57 |
| 85 | Umreth ... | 14,024 | 279 | 300 | 579 | 41·28 |
| 86 | Dakore ... | 7,900 | 147 | 164 | 311 | 38·92 |
| 87 | Kapadvanj ... | 14,794 | 280 | 248 | 528 | 35·69 |
| | *Panch Mahals District.* | | | | | |
| 88 | Godhra ... | 26,969 | 616 | 456 | 1,072 | 39·75 |
| 89 | Dohad ... | 16,071 | 263 | 238 | 501 | 31·17 |
| | *Ahmedabad District.* | | | | | |
| 90 | Ahmedabad ... | 270,599 | 6,139 | 5,688 | 11,827 | 43·70 |
| 91 | Dhandhuka ... | 8,056 | 179 | 187 | 366 | 45·43 |
| 92 | Viramgaon ... | 26,252 | 341 | 351 | 692 | 26·36 |
| 93 | Dholka ... | 12,513 | 262 | 237 | 499 | 39·87 |
| 94 | Ahmedabad Cantonment. ... | 1,745 | 9 | 16 | 25 | 14·32 |
| | *Karachi District.* | | | | | |
| 95 | Karachi ... | 199,014 | 5,572 | 5,183 | 10,755 | 54·04 |
| 96 | Tatta ... | 8,470 | 60 | 62 | 122 | 14·40 |
| 97 | Kotri ... | 9,072 | 73 | 52 | 125 | 13·78 |
| 98 | Karachi Cantonment ... | 6,525 | 142 | 87 | 229 | 35·09 |
| | *Hyderabad District.* | | | | | |
| 99 | Hyderabad ... | 72,625 | 1,523 | 1,500 | 3,023 | 41·62 |
| 100 | Halla ... | 5,757 | 83 | 52 | 135 | 23·45 |
| 101 | Matiari ... | 4,638 | 66 | 36 | 102 | 21·99 |
| 102 | Hyderabad Cantonment ... | 3,760 | 12 | 10 | 23 | 5·85 |
| | *Thar and Parkar District.* | | | | | |
| 103 | Umarkot ... | 4,199 | 48 | 57 | 105 | 25·00 |
| 104 | Mirpurkhas ... | 5,765 | 66 | 54 | 120 | 20·81 |

No. VI—*contd.*

| 5 | 6 | 7 | 8 | 9 | 10 | 11 | |
|---|---|---|---|---|---|---|---|
| | | | | | | Injuries. | |
| | | | | | | Suicide. | |
| Cholera. | Small-pox. | Plague. | Fevers. | Dysentery and Diarrhœa. | Respiratory Diseases. | Male. | Female. |
| ... | ... | ... | 69 | 12 | 90 | ... | ... |
| ... | ... | ... | 86 | 14 | 47 | ... | ... |
| ... | ... | ... | 489 | 7 | 344 | ... | ... |
| ... | ... | ... | 186 | 47 | 40 | ... | ... |
| ... | ... | ... | 176 | 7 | 18 | ... | ... |
| ... | ... | ... | 118 | 4 | 235 | ... | ... |
| ... | ... | ... | 118 | 24 | 79 | ... | ... |
| ... | ... | ... | 233 | 12 | 84 | ... | ... |
| ... | ... | ... | 450 | 1 | 58 | ... | ... |
| ... | ... | ... | 308 | 1 | 6 | ... | ... |
| ... | 7 | ... | 3,283 | 445 | 4,075 | 2 | 1 |
| ... | ... | ... | 127 | 9 | 85 | ... | ... |
| ... | 1 | ... | 351 | 7 | 307 | 1 | ... |
| ... | ... | ... | 235 | 8 | 56 | ... | ... |
| ... | ... | ... | 19 | 1 | 4 | ... | ... |
| ... | 4 | ... | 463 | 311 | 2,293 | ... | ... |
| ... | 1 | ... | 122 | 11 | 39 | ... | ... |
| ... | ... | ... | 65 | 2 | 53 | ... | ... |
| ... | ... | ... | 30 | 3 | 4 | ... | ... |
| ... | 7 | ... | 352 | 101 | 826 | 3 | ... |
| ... | ... | ... | 31 | ... | 3 | ... | ... |
| ... | ... | ... | 80 | ... | 27 | ... | ... |
| ... | 1 | ... | 26 | ... | 5 | ... | ... |
| ... | 1 | ... | 21 | 4 | 40 | ... | ... |
| ... | 1 | ... | 65 | 2 | 34 | ... | ... |

ANNUAL FORM.

| 1 | 2 | 11 | | | | 12 | 13 |
|---|---|---|---|---|---|---|---|
| | | INJURIES—*contd.* | | | | | |
| No. | Districts and Towns. | Wounding or accident. | Snake-bite, or killed by wild beasts. | Rabies. | Total. | All other causes. | Total deaths from all causes. |
| | B.—TOWNS—*contd.* | | | | | | |
| | *Kaira District.* | | | | | | |
| 80 | Kaira ... | 3 | ... | ... | 3 | 34 | 208 |
| 81 | Mehmedabad ... | 7 | ... | ... | 7 | 54 | 208 |
| 82 | Nadiad ... | 24 | 2 | ... | 26 | 284 | 1,150 |
| 83 | Borsad ... | ... | ... | ... | ... | 117 | 390 |
| 84 | Anand ... | 12 | ... | 1 | 13 | 22 | 236 |
| 85 | Umreth ... | 3 | ... | ... | 3 | 85 | 445 |
| 86 | Dakore ... | 5 | 2 | ... | 7 | 85 | 313 |
| 87 | Kapadvanj ... | 3 | 1 | ... | 4 | 92 | 425 |
| | *Panch Mahals District.* | | | | | | |
| 88 | Godhra ... | 1 | ... | ... | 1 | 40 | 550 |
| 89 | Dohad ... | 1 | ... | ... | 1 | 27 | 343 |
| | *Ahmedabad District.* | | | | | | |
| 90 | Ahmedabad ... | 129 | 3 | 4 | 139 | 3,440 | 11,389 |
| 91 | Dhandhuka ... | 3 | 2 | ... | 5 | 44 | 270 |
| 92 | Viramgaon ... | 3 | ... | ... | 4 | 58 | 728 |
| 93 | Dholka ... | 3 | 3 | 1 | 7 | 54 | 360 |
| 94 | Ahmedabad Cantonment ... | ... | ... | ... | ... | 1 | 25 |
| | *Karachi District.* | | | | | | |
| 95 | Karachi ... | 97 | ... | ... | 97 | 2,430 | 5,598 |
| 96 | Tatta ... | ... | ... | ... | ... | 1 | 174 |
| 97 | Kotri ... | 1 | ... | ... | 1 | 22 | 143 |
| 98 | Karachi Cantonment ... | ... | ... | ... | ... | 30 | 67 |
| | *Hyderabad District.* | | | | | | |
| 99 | Hyderabad ... | 38 | ... | ... | 41 | 760 | 2,087 |
| 100 | Halla ... | ... | ... | ... | ... | 5 | 39 |
| 101 | Matiari ... | 1 | ... | ... | 1 | 10 | 118 |
| 102 | Hyderabad Cantonment ... | ... | ... | ... | ... | 4 | 30 |
| | *Thar and Parkar District.* | | | | | | |
| 103 | Umarkot ... | 1 | ... | ... | 1 | 30 | 97 |
| 104 | Mirpurkhas ... | 1 | 1 | ... | 2 | 11 | 115 |

No. VI—*contd.*

14

RATIO OF DEATHS PER 1,000 OF POPULATION.

| Cholera. | Small-pox. | Plague. | Fevers. | Dysentery and Diarrhœa. | Respiratory Diseases. | Injuries. | All other causes. | From all causes. For the year. | From all causes. Mean of previous five years. |
|---|---|---|---|---|---|---|---|---|---|
| ..... | ... | ... | 8·34 | 1·45 | 10·87 | ·36 | 4·11 | 25·13 | 24·77 |
| ..... | ... | ... | 13·79 | 2·24 | 7·54 | 1·12 | 8·66 | 33·35 | 33·67 |
| ..... | ... | ... | 15·32 | ·22 | 10·78 | ·81 | 8·90 | 36·03 | 35·57 |
| ..... | ... | ... | 15·35 | 3·88 | 3·30 | ... | 9·66 | 32·19 | 36·62 |
| ..... | ... | ... | 15·97 | ·63 | 1·62 | 1·18 | 2·00 | 21·40 | 24·16 |
| ..... | ... | ... | 8·41 | ·29 | 16·76 | ·21 | 6·06 | 31·73 | 35·49 |
| ..... | ... | ... | 14·77 | 3·00 | 9·89 | ·87 | 10·64 | 39·17 | 36·15 |
| ..... | ... | ... | 15·75 | ·81 | 5·68 | ·27 | 6·22 | 28·73 | 30·52 |
| ..... | ... | ... | 16·68 | ·04 | 2·15 | ·04 | 1·48 | 20·39 | 19·80 |
| ..... | ... | ... | 19·17 | ·06 | ·87 | ·06 | 1·68 | 21·84 | 23·68 |
| ..... | ·03 | ... | 12·13 | 1·64 | 15·06 | ·51 | 12·71 | 42·08 | 41·34 |
| ..... | ... | ... | 15·76 | 1·12 | 10·55 | ·62 | 5·46 | 33·51 | 30·26 |
| ..... | ·04 | ... | 13·37 | ·27 | 11·69 | ·15 | 2·21 | 27·73 | 30·35 |
| ..... | ... | ... | 18·77 | ·64 | 4·48 | ·56 | 4·32 | 28·77 | 29·30 |
| ..... | ... | ... | 10·89 | ·57 | 2·29 | ... | ·57 | 14·32 | 20·97 |
| ..... | ·02 | ... | 2·32 | 1·56 | 11·53 | ·49 | 12·21 | 28·13 | 31·41 |
| ..... | ·12 | ... | 14·40 | 1·30 | 4·60 | ... | ·12 | 20·54 | 17·92 |
| ..... | ... | ... | 7·16 | ·23 | 5·84 | ·11 | 2·42 | 15·76 | 17·08 |
| ..... | ... | ... | 4·59 | ·47 | ·62 | ... | 4·59 | 10·27 | 11·42 |
| ..... | ·09 | ... | 4·85 | 1·39 | 11·37 | ·56 | 10·47 | 28·73 | 31·93 |
| ..... | ... | ... | 5·39 | ..... | ·52 | ... | ·87 | 6·78 | 11·27 |
| ..... | ... | ... | 17·25 | ..... | 5·82 | ·22 | 2·16 | 25·45 | 19·90 |
| ..... | ·26 | ... | 5·32 | ..... | 1·33 | ... | 1·07 | 7·98 | 7·97 |
| ..... | ·24 | ... | 5·00 | ·95 | 9·52 | ·24 | 7·16 | 23·11 | 29·44 |
| ..... | ·17 | ... | 11·27 | ·35 | 5·89 | ·35 | 1·89 | 19·92 | 24·53 |

| 1 | 2 | 3 | 4 | | | |
|---|---|---|---|---|---|---|
| | | | Births. | | | |
| No. | Districts and Towns. | Population according to Census of 1921. | Male. | Female. | Total. | Birth-rate. |
| | B.—Towns—*concld.* | | | | | |
| | *Nawabshah District.* | | | | | |
| 105 | Nawabshah ... | 2,771 | 33 | 20 | 53 | 19·11 |
| 106 | Tando Adam ... | 12,966 | 182 | 142 | 324 | 24·98 |
| | *Larkana District.* | | | | | |
| 107 | Larkana ... | 17,700 | 396 | 329 | 725 | 40·95 |
| 108 | Kambar ... | 7,613 | 105 | 89 | 194 | 25·35 |
| 109 | Ratodero ... | 5,555 | 118 | 110 | 228 | 40·96 |
| 110 | Sehwan ... | 4,423 | 48 | 18 | 66 | 14·92 |
| | *Sukkur District.* | | | | | |
| 111 | Sukkur ... | 42,046 | 717 | 578 | 1,295 | 30·80 |
| 112 | Shikarpur ... | 55,347 | 1,063 | 815 | 1,878 | 33·91 |
| 113 | Rohri ... | 11,378 | 218 | 173 | 391 | 34·36 |
| 114 | Garhi Yasin ... | 6,375 | 113 | 102 | 215 | 33·73 |
| | *Upper Sind Frontier District.* | | | | | |
| 115 | Jacobabad ... | 10,578 | 118 | 73 | 191 | 18·06 |
| | Total of Towns ... | 3,743,785 | 59,456 | 53,950 | 113,406 | 30·29 |
| | Total for the Presidency ... | 19,165,614 | 380,159 | 351,488 | 731,647 | 38·17 |

No. VI—*concld.*

| 5 | 6 | 7 | 8 | 9 | 10 | 11 | |
|---|---|---|---|---|---|---|---|
| | | | | | | Injuries. | |
| | | | | | | Suicide. | |
| Cholera. | Small-pox. | Plague. | Fevers. | Dysentery and Diarrhœa. | Respiratory. Diseases. | Male. | Female. |
| ..... | ..... | ..... | 36 | ..... | ..... | ..... | ... |
| ..... | 50 | ..... | 96 | 1 | 59 | ..... | ... |
| 1 | ..... | ..... | 149 | 19 | 91 | ..... | ... |
| 19 | ..... | ..... | 137 | 4 | 27 | ..... | ... |
| ..... | ..... | ..... | 120 | ..... | ..... | ..... | ... |
| ..... | ..... | ..... | 21 | ..... | 32 | ..... | ... |
| ..... | ..... | ..... | 575 | 18 | 50 | 1 | ... |
| 2 | ..... | ..... | 520 | 12 | 155 | 4 | 1 |
| ..... | 4 | ..... | 179 | 16 | 23 | ..... | ... |
| ..... | ..... | ..... | 157 | ..... | ..... | ..... | ... |
| ..... | ..... | ..... | 93 | 2 | 7 | ..... | ... |
| 708 | 1,717 | 2,652 | 23,558 | 4,810 | 31,768 | 121 | 45 |
| 6,881 | 5,265 | 18,563 | 206,356 | 23,371 | 97,428 | 368 | 212 |

ANNUAL FORM

| 1 | 2 | 11 | | | | 12 | 13 |
|---|---|---|---|---|---|---|---|
| | | INJURIES—*contd.* | | | | | |
| No. | Districts and Towns. | Wounding or accident. | Snake-bite or killed by wild beasts. | Rabies. | Total. | All other causes. | Total deaths from all causes. |
| | B.—TOWNS—*concld.* | | | | | | |
| | *Nawabshah District.* | | | | | | |
| 105 | Nawabshah ... | ... | ... | ... | ... | ... | 36 |
| 106 | Tando Adam ... | 4 | ... | 1 | 5 | 4 | 215 |
| | *Larkana District.* | | | | | | |
| 107 | Larkana ... | 7 | ... | 1 | 8 | 247 | 515 |
| 108 | Kambar ... | 4 | ... | ... | 4 | 10 | 201 |
| 109 | Ratodero ... | 1 | ... | ... | 1 | 3 | 124 |
| 110 | Sehwan ... | ... | ... | ... | ... | 14 | 67 |
| | *Sukkur District.* | | | | | | |
| 111 | Sukkur ... | 17 | 1 | ... | 19 | 148 | 810 |
| 112 | Shikarpur ... | 14 | 1 | ... | 20 | 897 | 1,606 |
| 113 | Rohri ... | 3 | ... | ... | 3 | 24 | 248 |
| 114 | Garhi Yasin ... | 1 | ... | ... | 1 | 8 | 166 |
| | *Upper Sind Frontier District.* | | | | | | |
| 115 | Jacobabad ... | 1 | ... | ... | 1 | 23 | 126 |
| | Total of Towns ... | 1,516 | 56 | 43 | 1,781 | 36,554 | 103,648 |
| | Total for the Presidency ... | 5,694 | 1,489 | 196 | 7,959 | 162,062 | 522,885 |

No. VI—*concld.*

14

RATIO OF DEATHS PER 1,000 OF POPULATION.

| Cholera. | Small-pox. | Plague. | Fevers. | Dysentery and Diarrhœa. | Respiratory Diseases. | Injuries. | All other causes. | From all causes. For the year. | From all causes. Mean of previous five years. |
|---|---|---|---|---|---|---|---|---|---|
| ..... | .. | ... | 12·99 | ..... | ... | ... | ... | 12·99 | 23·96 |
| ..... | 3·86 | ... | 7·40 | ·06 | 4·55 | ·38 | ·31 | 16·58 | 11·56 |
| ·65 | ... | ... | 8·42 | 1·07 | 5·15 | ·45 | 13·05 | 29·09 | 29·16 |
| 2·50 | ... | ... | 17·99 | ·53 | 3·54 | ·53 | 1·31 | 26·40 | 21·28 |
| ..... | ... | ... | 21·56 | ..... | ... | ·18 | ·54 | 22·28 | 15·48 |
| ..... | ... | ... | 4·74 | ..... | 7·23 | ... | 3·17 | 15·14 | 19·26 |
| ..... | ... | ... | 13·67 | ·43 | 1·19 | ·45 | 3·52 | 19 26 | 15·67 |
| ·04 | ... | ... | 9·40 | ·22 | 2·80 | ·36 | 16·21 | 29·03 | 30·71 |
| ..... | ·35 | ... | 15·73 | 1·31 | 2·02 | ·27 | 2·11 | 21·79 | 21·57 |
| ..... | ... | ... | 24·63 | ..... | ... | ·16 | 1·24 | 26·03 | 26·03 |
| ..... | ... | ... | 8·79 | ·19 | ·67 | ·09 | 2·17 | 11·01 | 18·62 |
| ·19 | ·46 | ·71 | 6·32 | 1·28 | 6·48 | ·48 | 9·76 | 27·68 | 29·22 |
| ·36 | ·27 | ·71 | 10·77 | 1·22 | 5·08 | ·41 | 8·36 | 27·28 | 25·25 |

ANNUAL FORM No. VI (*a*)—DEATHS *registered from certain* *during the*

| 1 | 2 | 3 | 4 | | 5 | |
|---|---|---|---|---|---|---|
| | | | Enteric Fever. | | Measles. | |
| No. | Districts and Towns. | Population according to Census of 1921. | Deaths. | Ratio. | Deaths. | Ratio. |
| | A.—DISTRICTS (EXCLUDING TOWNS.) | | | | | |
| | *Western Registration District.* | | | | | |
| 1 | East Khándesh ... ... | 918,037 | ... | ... | 595 | ·65 |
| 2 | West Khándesh ... ... | 568,809 | ... | ... | 147 | ·25 |
| 3 | Násik ... ... | 705,858 | ... | ... | 113 | ·16 |
| 4 | Thána ... ... | 694,658 | ... | ... | 29 | ·04 |
| 5 | Bombay Suburban ... ... | 91,943 | ... | ... | 4 | ·04 |
| 6 | Kolaba ... ... | 533,270 | ... | ... | 11 | ·02 |
| | *Central Registration District.* | | | | | |
| 7 | Ahmednagar ... ... | 667,106 | 147 | ·22 | 79 | ·12 |
| 8 | Poona ... ... | 770,334 | 70 | ·09 | 26 | ·03 |
| 9 | Sholápur ... ... | 576,538 | 46 | ·08 | 88 | ·15 |
| 10 | Sátára ... ... | 963,308 | 81 | ·08 | 151 | ·14 |
| 11 | Ratnágiri ... ... | 1,083,350 | 56 | ·05 | 87 | ·08 |
| | *Southern Registration District.* | | | | | |
| 12 | Belgaum ... ... | 871,163 | 260 | ·30 | 292 | ·34 |
| 13 | Dhárwár ... ... | 870,565 | 248 | ·28 | 220 | ·25 |
| 14 | Bijápur ... ... | 717,798 | 288 | ·40 | 130 | ·19 |
| 15 | Kánara ... ... | 350,246 | 333 | ·94 | 8 | ·02 |
| | *Gujárat Registration District.* | | | | | |
| 16 | Surat ... ... | 526,465 | ... | ... | 4 | ·01 |
| 17 | Broach ... ... | 243,112 | ... | ... | 2 | ·01 |
| 18 | Kaira ... ... | 604,528 | ... | ... | 4 | ·01 |
| 19 | Panch Mahális ... ... | 331,791 | ... | .. | 9 | ·03 |
| 20 | Ahmedabad ... ... | 568,759 | 1 | ·00 | 12 | ·02 |
| | *Sind Registration District.* | | | | | |
| 21 | Karáchi ... ... | 307,576 | 20 | ·06 | 5 | ·01 |
| 22 | Hyderabad ... ... | 480,469 | 1 | ·00 | ... | ... |
| 23 | Thar and Párkar ... ... | 386,343 | 20 | ·05 | 1 | ·00 |
| 24 | Nawábshah ... ... | 402,915 | 10 | ·02 | 2 | ·00 |
| 25 | Lárkana ... ... | 562,636 | 34 | ·06 | 4 | ·00 |
| 26 | Sukkur ... ... | 394,216 | 10 | ·02 | 5 | ·01 |
| 27 | Upper Sind Frontier ... ... | 230,036 | ... | ... | 1 | .00 |
| | Total of Districts ... | 15,421,629 | 1,620 | ·12 | 2,019 | ·13 |

*diseases in the* DISTRICTS *and* TOWNS *of the* BOMBAY PRESIDENCY
*year 1928*

| 6 Relapsing Fever. | | 7 Kala Azar. | | 8 Malaria. | | 9 Other Fevers. | | 10 Influenza. | |
|---|---|---|---|---|---|---|---|---|---|
| Deaths. | Ratio. | Deaths. | Ratio. | Deaths. | Ratio. | Deaths. | Ratio. | Deaths. | Ratio. |
| ... | ... | ... | ... | 1,159 | 1·26 | 13,929 | 15·17 | ... | ... |
| ... | ... | ... | ... | 662 | 1·16 | 7,244 | 12·74 | 4 | ·01 |
| ... | ... | ... | ... | 2,028 | 2·87 | 8,845 | 12·53 | 5 | ·01 |
| ... | ... | ... | ... | 1,239 | 1·78 | 5,839 | 8·41 | 12 | ·02 |
| ... | ... | ... | ... | 100 | 1·09 | 347 | 3·77 | ... | ... |
| ... | ... | ... | ... | 564 | 1·06 | 4,540 | 8·51 | 1 | ... |
| ... | ... | ... | ... | 2,001 | 3·00 | 3,457 | 5·18 | 12 | ·02 |
| ... | ... | ... | ... | 3,015 | 3·92 | 5,925 | 7·69 | ... | ... |
| ... | ... | ... | ... | 284 | ·49 | 6,624 | 11·49 | ... | ... |
| ... | ... | ... | ... | 260 | ·27 | 10,555 | 10·96 | ... | ... |
| ... | ... | ... | ... | 137 | ·13 | 8,320 | 7·68 | 11 | ·01 |
| ... | ... | ... | ... | 2,279 | 2·62 | 4,337 | 4·98 | 12 | ·01 |
| ... | ... | ... | ... | 2,184 | 2·51 | 6,238 | 7·16 | 14 | ·02 |
| ... | ... | ... | ... | 827 | 1·15 | 7,024 | 9·79 | 3 | ·00 |
| ... | ... | ... | ... | 1,205 | 3·44 | 2,615 | 7·47 | 3 | ·01 |
| ... | ... | ... | ... | 23 | ·04 | 5,174 | 9·83 | ... | ... |
| ... | ... | ... | ... | 1 | ·00 | 4,191 | 17·24 | ... | ... |
| ... | ... | ... | ... | 1 | ·00 | 5,891 | 9·74 | ... | ... |
| ... | ... | ... | ... | 8 | ·02 | 4,669 | 14·07 | 2 | ·01 |
| ... | ... | ... | ... | 107 | ·19 | 9,058 | 15·93 | 7 | ·01 |
| ... | ... | ... | ... | 2,558 | 8·31 | 684 | 2·22 | ... | ... |
| ... | ... | ... | ... | 3,047 | 6·34 | 2,161 | 4·50 | ... | ... |
| ... | ... | ... | ... | 3,017 | 7·81 | 1,808 | 4·68 | 42 | ·11 |
| ... | ... | ... | ... | 3,958 | 9·82 | 1,619 | 4·02 | ... | ... |
| ... | ... | ... | ... | 6,787 | 12·06 | 2,736 | 4·86 | ... | ... |
| ... | ... | ... | ... | 3,202 | 8·12 | 1,672 | 4·24 | ... | ... |
| ... | ... | ... | ... | 1,287 | 5·59 | 1,494 | 6·49 | ... | ... |
| ... | ... | ... | ... | 41,940 | 2·72 | 136,991 | 8·88 | 128 | ·01 |

| 1 | 2 | 11 | | 12 | | 13 | |
|---|---|---|---|---|---|---|---|
| | | Pneumonia. | | Phthisis. | | Other Respiratory diseases. | |
| No. | Districts and Towns. | Deaths. | Ratio. | Deaths. | Ratio. | Deaths. | Ratio. |
| | A.—DISTRICTS (EXCLUDING TOWNS) | | | | | | |
| | *Western Registration District.* | | | | | | |
| 1 | East Khandesh ... ... | 51 | ·05 | 919 | 1·01 | 3,142 | 3·43 |
| 2 | West Khandesh ... ... | 88 | ·15 | 528 | ·93 | 1,786 | 3·14 |
| 3 | Nasik ... ... | 380 | ·54 | 606 | ·86 | 3,563 | 5·05 |
| 4 | Thana ... ... | 1,065 | 1·53 | 1,410 | 2·03 | 1,092 | 1·57 |
| 5 | Bombay Suburban ... ... | 182 | 1·98 | 123 | 1·34 | 218 | 2·37 |
| 6 | Kolaba ... ... | 339 | ·64 | 1,825 | 3·42 | 850 | 1·59 |
| | *Central Registration District.* | | | | | | |
| 7 | Ahmednagar ... ... | 16 | ·03 | 379 | ·57 | 4,195 | 6·29 |
| 8 | Poona ... ... | 92 | ·12 | 671 | ·87 | 3,271 | 4·25 |
| 9 | Sholapur ... ... | 20 | ·03 | 333 | ·58 | 1,849 | 3·21 |
| 10 | Satara ... ... | 55 | ·05 | 757 | ·79 | 1,663 | 1·70 |
| 11 | Ratnágiri ... ... | 34 | ·03 | 2,529 | 2·33 | 1,885 | 1·74 |
| | *Southern Registration District.* | | | | | | |
| 12 | Belgaum ... ... | 68 | ·07 | 674 | ·77 | 2,669 | 3·05 |
| 13 | Dhárwár ... ... | 17 | ·02 | 579 | ·67 | 1,993 | 2·29 |
| 14 | Bijápur ... ... | 3 | ·00 | 495 | ·56 | 1,809 | 2·52 |
| 15 | Kánara ... ... | 150 | ·43 | 240 | ·69 | 708 | 2·02 |
| | *Gujarat Registration District.* | | | | | | |
| 16 | Surat ... ... | 1,125 | 2·14 | 540 | 1·02 | 3,461 | 6·57 |
| 17 | Broach ... ... | 377 | 1·55 | 241 | ·99 | 1,656 | 6·81 |
| 18 | Kaira ... ... | 353 | ·58 | 1,186 | 1·96 | 4,981 | 8·16 |
| 19 | Panch Mahals ... ... | 122 | ·37 | 212 | ·64 | 839 | 2·53 |
| 20 | Ahmedabad ... ... | 349 | ·61 | 730 | 1·28 | 1,456 | 2·56 |
| | *Sind Registration District.* | | | | | | |
| 21 | Karáchi ... ... | 497 | 1·61 | 65 | ·21 | 19 | ·06 |
| 22 | Hyderabad ... ... | 416 | ·87 | 53 | ·11 | 23 | ·05 |
| 23 | Thar and Párkar ... ... | 907 | 2·34 | 67 | ·17 | 48 | 1·24 |
| 24 | Nawábshah ... ... | 437 | 1·08 | 38 | ·09 | 24 | ·06 |
| 25 | Lárkana ... ... | 138 | ·25 | 34 | ·06 | 14 | ·03 |
| 26 | Sukkur ... ... | 26 | ·07 | 25 | ·06 | 16 | ·04 |
| 27 | Upper Sind Frontier ... ... | 34 | ·14 | 6 | ·03 | 3 | ·01 |
| | Total of Districts ... | 7,336 | ·48 | 15,166 | ·98 | 43,158 | 2·80 |

No. VI (*a*)—*contd.*

| 14 Dysentery. | | 15 Diarrhœa. | | 16 | 17 Deaths under 1 year. | | | 18 | 19 |
|---|---|---|---|---|---|---|---|---|---|
| Deaths. | Ratio. | Deaths. | Ratio. | Deaths from child birth. | Male. | Female. | Total. | Infant mortality rate per 1,000 births. | No. |
| 269 | ·29 | 1,209 | 1·32 | 106 | 5,478 | 4,694 | 10,172 | 199·58 | 1 |
| 9 | ·02 | 518 | ·91 | 37 | 3,050 | 2,554 | 5,614 | 181·44 | 2 |
| 124 | ·17 | 1,027 | 1·46 | 261 | 4,394 | 3,699 | 8,093 | 211·65 | 3 |
| 131 | ·19 | 521 | ·75 | 202 | 1,885 | 1,711 | 3,596 | 142·39 | 4 |
| 35 | ·38 | 181 | 1·97 | 16 | 162 | 171 | 333 | 173·53 | 5 |
| 256 | ·48 | 756 | 1·42 | 111 | 1,937 | 1,565 | 3,502 | 150·17 | 6 |
| 13 | ·02 | 1,349 | 2·02 | 226 | 4,515 | 3,543 | 8,058 | 211·22 | 7 |
| 18 | ·02 | 1,252 | 1·63 | 144 | 3,340 | 2,566 | 5,906 | 176·22 | 8 |
| 3 | ·01 | 1,315 | 2·28 | 117 | 3,338 | 2,723 | 6,061 | 210·62 | 9 |
| 25 | ·03 | 1,753 | 1·82 | 93 | 4,088 | 3,365 | 7,453 | 166·79 | 10 |
| 569 | ·53 | 460 | ·42 | 296 | 2,046 | 1,795 | 3,841 | 92·79 | 11 |
| 119 | ·14 | 2,126 | 2·44 | 162 | 3,103 | 2,500 | 5,603 | 150·71 | 12 |
| 127 | ·15 | 632 | ·73 | 225 | 2,887 | 2,491 | 5,378 | 160·67 | 13 |
| 124 | ·17 | 935 | 1·30 | 105 | 2,443 | 1,953 | 4,396 | 149·78 | 14 |
| 229 | ·65 | 588 | 1·68 | 269 | 1,403 | 1,196 | 2,599 | 211·39 | 15 |
| 232 | ·44 | 152 | ·29 | 25 | 1,968 | 1,753 | 3,721 | 161·99 | 16 |
| 31 | ·13 | 192 | ·79 | 24 | 1,417 | 1,294 | 2,711 | 238·88 | 17 |
| 291 | ·48 | 469 | ·78 | 31 | 2,021 | 1,908 | 3,929 | 183·75 | 18 |
| 34 | ·10 | 79 | ·24 | 85 | 975 | 913 | 1,888 | 136·34 | 19 |
| 64 | ·11 | 224 | ·40 | 9 | 1,594 | 1,468 | 3,062 | 159·04 | 20 |
| 17 | ·05 | 8 | ·02 | 54 | 495 | 355 | 850 | 189·61 | 21 |
| 4 | ·00 | 12 | ·02 | 78 | 678 | 537 | 1,215 | 167·37 | 22 |
| 5 | ·01 | 12 | ·03 | 99 | 524 | 467 | 991 | 106·53 | 23 |
| 2 | ·00 | 3 | ·00 | 93 | 684 | 484 | 1,169 | 106·48 | 24 |
| 6 | ·01 | 12 | ·02 | 116 | 787 | 672 | 1,459 | 125·72 | 25 |
| 8 | ·02 | 22 | ·05 | 63 | 716 | 522 | 1,238 | 120·25 | 26 |
| 1 | ·00 | 5 | ·02 | 20 | 375 | 269 | 644 | 105·47 | 27 |
| 2,749 | ·18 | 15,812 | 1·02 | 3,078 | 56,513 | 47,168 | 103,481 | 167·38 | |

| 1 | 2 | 3 | 4 | | 5 | |
|---|---|---|---|---|---|---|
| | | | Enteric Fever. | | Measles. | |
| No. | Districts and Towns. | Population according to Census of 1921. | Deaths. | Ratio. | Deaths. | Ratio. |
| | B.—TOWNS. | | | | | |
| | *East Khandesh District.* | | | | | |
| 1 | Jalgaon ... ... | 23,696 | ... | ... | 33 | 1·39 |
| 2 | Bhusáwal ... ... | 24,933 | ... | ... | 10 | ·40 |
| 3 | Chopda ... ... | 16,930 | ... | ... | 3 | ·18 |
| 4 | Dharangaon ... ... | 14,824 | ... | ... | 33 | 2·23 |
| 5 | Parola ... ... | 12,079 | ... | ... | 40 | 3·31 |
| 6 | Amálner ... ... | 17,068 | ... | ... | ... | ... |
| 7 | Erandol ... ... | 12,489 | ... | ... | ... | ... |
| 8 | Nasirabad ... ... | 12,188 | ... | ... | 1 | ·08 |
| 9 | Chálisgaon ... ... | 11,990 | ... | ... | 9 | ·75 |
| 10 | Yawal ... ... | 10,888 | ... | ... | ... | ... |
| | *West Khandesh District.* | | | | | |
| 11 | Dhulia ... ... | 30,061 | ... | ... | 35 | 1·16 |
| 12 | Nandurbar ... ... | 13,842 | ... | ... | ... | ... |
| | *Nasik District.* | | | | | |
| 13 | Násik ... ... | 42,715 | ... | ... | 8 | ·19 |
| 14 | Yeola ... ... | 13,911 | ... | ... | 5 | ·36 |
| 15 | Málegaon ... ... | 23,711 | ... | ... | 5 | ·21 |
| 16 | Igatpuri ... ... | 9,977 | ... | ... | 6 | ·60 |
| 17 | Manmad ... ... | 11,866 | ... | ... | ... | ... |
| 18 | Trimbak ... .... | 4,533 | ... | ... | ... | ... |
| 19 | Deolali Cantonment ... ... | 12,640 | ... | ... | ... | ... |
| | *Thana District.* | | | | | |
| 20 | Thána ... ... | 22,116 | ... | ... | 5 | ·22 |
| 21 | Bhiwandi ... ... | 12,188 | ... | ... | .... | ... |
| 22 | Kalyán ... ... | 17,573 | ... | ... | 3 | ·17 |
| 23 | Bassein ... ... | 10,364 | ... | ... | 5 | ·48 |
| | *Bombay Suburban District.* | | | | | |
| 24 | Bandra ... ... | 28,738 | 5 | ·17 | ... | ... |
| 25 | Kurla ... ... | 26,059 | ... | ... | ... | ... |
| 26 | Santa Cruz Cantonment ... ... | *4,701 | ... | ... | ... | ... |
| | *Kolaba District.* | | | | | |
| 27 | Alibág ... ... | 5,253 | ... | ... | ... | ... |
| 28 | Panvel ... ... | 8,622 | ... | ... | 3 | ·35 |
| 29 | Mahád ... ... | 7,192 | ... | ... | ... | ... |

No. VI (*a*)—*contd.*

| 6 | | 7 | | 8 | | 9 | | 10 | |
|---|---|---|---|---|---|---|---|---|---|
| Relapsing Fever. | | Kala Azar. | | Malaria. | | Other Fevers. | | Influenza. | |
| Deaths. | Ratio. | Deaths. | Ratio. | Deaths. | Ratio. | Deaths. | Ratio. | Deaths. | Ratio. |
| ... | ... | ... | ... | 5 | ·21 | 139 | 5·87 | ... | ... |
| ... | ... | ... | ... | 1 | ·04 | 214 | 8·58 | ... | ... |
| ... | ... | ... | ... | ... | ... | 111 | 6·56 | ... | ... |
| ... | ... | ... | ... | 1 | ·07 | 93 | 6·27 | ... | ... |
| ... | ... | ... | ... | 7 | ·58 | 95 | 7·87 | ... | ... |
| ... | ... | ... | ... | 1 | ·06 | 103 | 6·04 | ... | ... |
| ... | ... | ... | ... | 9 | ·72 | 116 | 9· 9 | ... | ... |
| ... | ... | ... | ... | 3 | ·25 | 202 | 16·57 | ... | ... |
| ... | ... | ... | ... | 37 | 3·09 | 135 | 11·26 | ... | ... |
| ... | ... | ... | ... | 1 | ·09 | 40 | 3·68 | ... | ... |
| ... | ... | ... | ... | ... | ... | 194 | 6·45 | ... | ... |
| ... | ... | ... | ... | 3 | ·22 | 70 | 5·05 | ... | ... |
| ... | ... | ... | ... | 52 | 1·22 | 116 | 2·72 | ... | ... |
| ... | ... | ... | ... | 15 | 1·08 | 318 | 22·86 | ... | ... |
| ... | ... | ... | ... | 51 | 2 15 | 127 | 5·36 | ... | ... |
| ... | ... | ... | ... | 1 | ·10 | 112 | 11·23 | ... | ... |
| ... | ... | ... | ... | ... | ... | 58 | 4·89 | ... | ... |
| ... | ... | ... | ... | ... | ... | 19 | 4·19 | ... | ... |
| ... | ... | ... | ... | 6 | ·47 | 5 | ·40 | 1 | ·09 |
| ... | ... | ... | ... | 26 | 1·18 | 218 | 9·86 | ... | ... |
| ... | ... | ... | ... | ... | ... | 129 | 10·58 | ... | ... |
| ... | ... | ... | ... | 11 | ·63 | 52 | 2·96 | ... | ... |
| ... | ... | ... | ... | 10 | ·97 | 17 | 1·64 | ... | ... |
| ... | ... | ... | ... | 2 | ·07 | 45 | 1·57 | ... | ... |
| ... | ... | ... | ... | 4 | ·15 | 68 | 2·42 | ... | ... |
| ... | ... | ... | ... | ... | ... | 4 | ·85 | ... | ... |
| ... | ... | ... | ... | ... | ... | 37 | 7·04 | ... | ... |
| ... | ... | ... | ... | 11 | 1·28 | 3 | ·35 | ... | ... |
| ... | ... | ... | ... | 6 | ·83 | 14 | 1·95 | ... | ... |

ANNUAL FORM

| 1 | 2 | 11 | | 12 | | 13 | |
|---|---|---|---|---|---|---|---|
| | | Pneumonia. | | Phthisis. | | Other Respiratory diseases. | |
| No. | Districts and Towns. | Deaths. | Ratio. | Deaths. | Ratio. | Deaths. | Ratio. |
| | B.—TOWNS. | | | | | | |
| | *East Khandesh District.* | | | | | | |
| 1 | Jalgaon ... ... | 5 | ·21 | 20 | ·84 | 59 | 2·49 |
| 2 | Bhusáwal ... ... | 15 | ·60 | 9 | ·36 | 24 | ·96 |
| 3 | Chopda ... ... | 1 | ·06 | 3 | ·18 | 25 | 1·47 |
| 4 | Dharangaon ... ... | ... | ... | 58 | 3·91 | 30 | 2·02 |
| 5 | Parola ... ... | ... | ... | 1 | ·08 | 69 | 5·71 |
| 6 | Amálner ... ... | ... | ... | 3 | ·18 | 35 | 2·05 |
| 7 | Erandol ... ... | ... | ... | 48 | 3·84 | 17 | 1·36 |
| 8 | Nasirabad ... ... | ... | ... | ... | ... | 80 | 6·56 |
| 9 | Chálisgaon ... ... | 3 | ·25 | 56 | 4·67 | 5 | ·42 |
| 10 | Yawal ... ... | ... | ... | 3 | ·28 | 50 | 4·59 |
| | *West Khandesh District.* | | | | | | |
| 11 | Dhulia ... ... | 73 | 2·43 | 51 | 1·70 | 92 | 3·06 |
| 12 | Nandurbar ... ... | 1 | ·07 | 10 | ·72 | 72 | 5·20 |
| | *Nasik District.* | | | | | | |
| 13 | Násik ... ... | 237 | 5·55 | 102 | 2·39 | 105 | 2·46 |
| 14 | Yeola ... ... | 6 | ·43 | 10 | ·72 | 89 | 6·39 |
| 15 | Málegaon ... ... | 10 | ·42 | 28 | 1·18 | 54 | 2·28 |
| 16 | Igatpuri ... ... | 4 | ·40 | 5 | ·50 | 28 | 2·81 |
| 17 | Manmad ... .. | 3 | ·25 | 9 | ·76 | 24 | 2·02 |
| 18 | Trimbak ... ... | ... | ... | 1 | ·22 | 15 | 3·31 |
| 19 | Deolali Cantonment ... ... | 12 | ·95 | 3 | ·24 | 12 | ·96 |
| | *Thana District.* | | | | | | |
| 20 | Thána ... ... | 24 | 1·08 | 40 | 1·81 | 15 | ·68 |
| 21 | Bhiwandi ... ... | 25 | 2·05 | 34 | 2·79 | 30 | 2·46 |
| 22 | Kalyán ... ... | 35 | 1·99 | 39 | 2·22 | 71 | 4·04 |
| 23 | Bassein ... ... | 22 | 2·12 | 17 | 1·64 | 3 | ·29 |
| | *Bombay Suburban District.* | | | | | | |
| 24 | Bandra ... ... | 60 | 2·09 | 27 | ·94 | 38 | 1·32 |
| 25 | Kurla ... ... | 16 | ·61 | ... | ... | 139 | 5·33 |
| 26 | Santa Cruz Cantonment ... ... | ... | ... | ... | ... | ... | ... |
| | *Kolaba District.* | | | | | | |
| 27 | Alibág ... ... | ... | ... | 22 | 4·19 | 2 | ·38 |
| 28 | Panvel ... ... | 7 | ·81 | 25 | 2·89 | 20 | 2·32 |
| 29 | Mahád ... ... | 14 | 1·95 | 18 | 2·50 | ... | ... |

No. VI (*a*)—*contd.*

| 14 | | 15 | | 16 | 17 | | | 18 | 19 |
|---|---|---|---|---|---|---|---|---|---|
| Dysentery. | | Diarrhœa. | | Deaths from child birth. | Deaths under 1 year. | | | Infant mortality rate per 1,000 births. | No. |
| Deaths. | Ratio. | Deaths. | Ratio. | | Male. | Female. | Total. | | |
| 3 | ·13 | 31 | 1·31 | 8 | 93 | 52 | 145 | 225·16 | 1 |
| 4 | ·16 | 15 | ·60 | ... | 80 | 66 | 146 | 197·56 | 2 |
| ... | ... | 15 | ·59 | ... | 24 | 21 | 45 | 102·04 | 3 |
| ... | ... | 25 | 1·69 | 2 | 66 | 52 | 118 | 203·09 | 4 |
| ... | ... | 33 | 1·03 | 3 | 57 | 58 | 115 | 211·37 | 5 |
| 4 | ·23 | 4 | ·23 | ... | 23 | 14 | 36 | 109·42 | 6 |
| 15 | 1·20 | 29 | 2·32 | 4 | 65 | 44 | 110 | 196·07 | 7 |
| 7 | ·57 | 38 | 3·11 | 6 | 78 | 60 | 138 | 219·63 | 8 |
| 1 | ·08 | 7 | ·58 | 3 | 61 | 42 | 103 | 232·51 | 9 |
| ... | ... | 6 | ·55 | 4 | 8 | 8 | 16 | 69·87 | 10 |
| ... | ... | 46 | 1·53 | 2 | 136 | 134 | 270 | 215·31 | 11 |
| 1 | ·07 | 35 | 2·53 | ... | 53 | 45 | 98 | 155·07 | 12 |
| 30 | ·70 | 48 | 1·12 | 22 | 194 | 167 | 361 | 285·15 | 13 |
| ... | ... | 18 | 1·29 | 8 | 76 | 80 | 156 | 443·18 | 14 |
| 2 | ·08 | 48 | 2·02 | 15 | 91 | 60 | 151 | 193·84 | 15 |
| ... | ... | 4 | ·40 | 1 | 36 | 21 | 57 | 229·64 | 16 |
| ... | ... | 8 | ·67 | 2 | 20 | 22 | 42 | 155·55 | 17 |
| 1 | ·22 | 4 | ·88 | 2 | 16 | 10 | 26 | 175·67 | 18 |
| 1 | ·08 | 8 | ·63 | ... | 16 | 15 | 31 | 1,240·00 | 19 |
| 3 | ·14 | 16 | ·72 | 2 | 53 | 39 | 92 | 231·16 | 20 |
| ... | ... | 41 | 3·36 | ... | 46 | 31 | 77 | 184·21 | 21 |
| 5 | ·28 | 14 | ·80 | 2 | 43 | 39 | 82 | 154·72 | 22 |
| 3 | ·29 | 12 | 1·16 | 4 | 8 | 4 | 12 | 51·06 | 23 |
| 29 | 1·01 | 16 | ·56 | 7 | 59 | 58 | 117 | 163·86 | 24 |
| 36 | 1·38 | 2 | ·08 | 13 | 68 | 47 | 115 | 193·93 | 25 |
| 2 | ·43 | ... | ... | ... | 1 | ... | 1 | 47·62 | 26 |
| 1 | ·19 | 4 | ·76 | 1 | 8 | 8 | 16 | 98·76 | 27 |
| ... | ... | 5 | ·69 | 1 | 17 | 3 | 20 | 101·01 | 28 |
| 6 | ·83 | ... | ... | 1 | 11 | 7 | 18 | 134·33 | 29 |

ANNUAL FORM

| 1 | 2 | 3 | 4 | | 5 | |
|---|---|---|---|---|---|---|
| No. | Districts and Towns. | Population according to Census of 1921. | Enteric Fever. | | Measles. | |
| | | | Deaths. | Ratio. | Deaths. | Ratio. |
| | B.—TOWNS—*contd.* | | | | | |
| | *Kolaba District*—contd. | | | | | |
| 30 | Uran ... ... | 8,135 | ... | ... | 2 | ·25 |
| 31 | City of Bombay ... ... | 1,148,815 | 133 | ·11 | 86 | ·07 |
| | *Ahmednagar District.* | | | | | |
| 32 | Ahmednagar ... ... | 33,133 | 18 | ·54 | 3 | ·09 |
| 33 | Sangamner ... ... | 12,737 | 6 | ·47 | ... | ... |
| 34 | Ahmednagar Cantonment ... ... | 10,997 | ... | ... | ... | ... |
| | *Poona District.* | | | | | |
| 35 | Poona City ... ... | 133,122 | 59 | ·44 | 43 | ·32 |
| 36 | Poona Suburban ... ... | 13,971 | ... | ... | 3 | ·22 |
| 37 | Baramati ... ... | 11,905 | 3 | ·25 | ... | ... |
| 38 | Khed ... ... | 7,013 | ... | ... | ... | ... |
| 39 | Lonávla ... ... | 10,471 | 1 | ·10 | 2 | ·19 |
| 40 | Junnar ... ... | 7,376 | 1 | ·14 | ... | ... |
| 41 | Poona Cantonment ... ... | 25,498 | 1 | ·04 | ... | ... |
| 42 | Kirkee do. ... ... | 7,991 | 1 | ·13 | ... | ... |
| | *Sholapur District.* | | | | | |
| 43 | Sholápur ... ... | 119,347 | ... | ... | 119 | 1·00 |
| 44 | Bársi ... ... | 22,074 | 3 | ·14 | 8 | ·36 |
| 45 | Pandharpur ... ... | 25,210 | 5 | ·20 | 39 | 1·55 |
| | *Satara District.* | | | | | |
| 46 | Sátára ... ... | 22,454 | 5 | ·23 | 3 | ·13 |
| 47 | Wái ... ... | 10,208 | 9 | ·88 | ... | ... |
| 48 | Karád ... ... | 11,255 | ... | ... | 1 | ·09 |
| 49 | Ashta ... ... | 9,016 | 1 | ·11 | ... | ... |
| 50 | Islámpur ... ... | 7,915 | 1 | ·13 | ... | ... |
| | *Ratnagiri District.* | | | | | |
| 51 | Ratnágiri ... ... | 18,286 | 5 | ·27 | 3 | ·16 |
| 52 | Vengurla ... ... | 19,126 | 8 | ·41 | 1 | ·05 |
| 53 | Málwan ... ... | 22,213 | ... | ... | ... | ... |
| 54 | Chiplun ... ... | 11,005 | 2 | ·18 | 3 | ·27 |
| | *Belgaum District.* | | | | | |
| 55 | Belgaum ... ... | 35,214 | 14 | ·39 | 13 | ·36 |
| 56 | Gokák ... ... | 9,989 | 1 | ·10 | ... | ... |
| 57 | Athni ... ... | 13,588 | 1 | ·07 | 2 | ·14 |
| 58 | Nipáni ... ... | 11,878 | ... | ... | 3 | ·25 |
| 59 | Belgaum Cantonment ... ... | 6,880 | ... | ... | ... | ... |

No. VI (a)—*contd.*

| 6 Relapsing Fever. | | 7 Kala Azar. | | 8 Malaria. | | 9 Other Fevers. | | 10 Influenza. | |
|---|---|---|---|---|---|---|---|---|---|
| Deaths. | Ratio. | Deaths. | Ratio. | Deaths. | Ratio. | Deaths. | Ratio. | Deaths. | Ratio. |
| ... | ... | ... | ... | ... | ... | 30 | 3·69 | ... | ... |
| ... | ... | ... | ... | 291 | ·25 | 1,613 | 1·40 | 77 | ·11 |
| ... | ... | ... | ... | 7 | ·21 | 57 | 1·72 | ... | ... |
| ... | ... | ... | ... | 2 | ·16 | 71 | 5·57 | ... | ... |
| ... | ... | ... | ... | 1 | ·09 | 52 | 4·73 | ... | ... |
| ... | ... | ... | ... | 129 | ·97 | 624 | 4·69 | ... | ... |
| ... | ... | ... | ... | 8 | ·57 | 99 | 7·09 | ... | ... |
| ... | ... | ... | ... | 2 | ·17 | 101 | 8·48 | ... | ... |
| ... | ... | ... | ... | 10 | 1·43 | 33 | 4·70 | ... | ... |
| ... | ... | ... | ... | 13 | 1·24 | 70 | 6·69 | 1 | ·10 |
| ... | ... | ... | ... | 15 | 2·03 | 11 | 1·49 | ... | ... |
| ... | ... | ... | ... | 3 | ·12 | 98 | 3·84 | ... | ... |
| ... | ... | ... | ... | ... | ... | 3 | ·37 | ... | ... |
| ... | ... | ... | ... | 1 | ·01 | 1,791 | 15·01 | ... | ... |
| ... | ... | ... | ... | 3 | ·14 | 366 | 17·49 | ... | ... |
| ... | ... | ... | ... | 7 | ·28 | 435 | 17·25 | ... | ... |
| ... | ... | ... | ... | 3 | ·13 | 100 | 4·45 | ... | ... |
| ... | ... | ... | ... | ... | ... | 57 | 5·58 | ... | ... |
| ... | ... | ... | ... | ... | ... | 10 | ·89 | ... | ... |
| ... | ... | ... | ... | ... | ... | 34 | 3·77 | ... | ... |
| ... | ... | ... | ... | ... | ... | 26 | 3·28 | ... | ... |
| ... | ... | ... | ... | 1 | ·05 | 80 | 4·38 | 4 | ·22 |
| ... | ... | ... | ... | 7 | ·37 | 75 | 3·92 | 1 | ·05 |
| ... | ... | ... | ... | ... | ... | 80 | 3·69 | ... | ... |
| ... | ... | ... | ... | ... | ... | 126 | 11·45 | ... | ... |
| ... | ... | ... | ... | 18 | ·50 | 132 | 3·64 | ... | ... |
| ... | ... | ... | ... | 3 | ·30 | 62 | 6·21 | ... | ... |
| ... | ... | 1 | ... | 3 | ·22 | 76 | 5·61 | | ... |
| ... | ... | ... | ... | 1 | ·08 | 99 | 8·33 | ... | ... |
| ... | ... | ... | ... | 2 | ·30 | 21 | 3·05 | ... | ... |

ANNUAL FORM

| No. | 9 Districts and Towns. | 11 Pneumonia. Deaths. | 11 Pneumonia. Ratio. | 12 Phthisis. Deaths. | 12 Phthisis. Ratio. | 13 Other Respiratory diseases. Deaths. | 13 Other Respiratory diseases. Ratio. |
|---|---|---|---|---|---|---|---|
| | B.—TOWNS—*contd.* | | | | | | |
| | *Kolaba District*—contd. | | | | | | |
| 30 | Uran ... ... | ... | ... | 6 | ·74 | 4 | ·49 |
| 31 | City of Bombay ... ... | 7,789 | 6·78 | 1,548 | 1·35 | 2,641 | 2·30 |
| | *Ahmednagar District.* | | | | | | |
| 32 | Ahmednagar ... ... | 32 | ·97 | 93 | 2·81 | 89 | 2·68 |
| 33 | Sangamner ... ... | 1 | ·08 | 11 | ·86 | 20 | 1·57 |
| 34 | Ahmednagar Cantonment ... ... | 17 | 1·55 | 12 | 1·09 | 42 | 3·82 |
| | *Poona District.* | | | | | | |
| 35 | Poona City ... ... | 1,081 | 8·12 | 431 | 3·24 | 366 | 2·75 |
| 36 | Poona Suburban ... ... | ... | ... | 6 | ·43 | 19 | 1·36 |
| 37 | Baramati ... ... | 7 | ·59 | 19 | 1·59 | 17 | 1·43 |
| 38 | Khed ... ... | ... | ... | 3 | ·43 | 53 | 7·56 |
| 39 | Lonávla ... ... | 57 | 5·44 | 15 | 1·43 | 23 | 2·19 |
| 40 | Junnar ... ... | 2 | ·27 | 21 | 2·85 | 43 | 5·83 |
| 41 | Poona Cantonment ... ... | 19 | ·75 | 21 | ·82 | 45 | 1·77 |
| 42 | Kirkee do. ... ... | 58 | 7·26 | 19 | 2·38 | 17 | 2·13 |
| | *Sholapur District.* | | | | | | |
| 43 | Sholapur ... ... | 41 | ·34 | 172 | 1·44 | 246 | 2·05 |
| 44 | Bársi ... ... | 1 | ·04 | 9 | ·41 | 47 | 2·13 |
| 45 | Pandharpur ... ... | 41 | 1·68 | 47 | 1·86 | 164 | 6·51 |
| | *Satara District.* | | | | | | |
| 46 | Sátára ... ... | 14 | ·53 | 47 | 2·09 | 22 | ·97 |
| 47 | Wái ... ... | ... | ... | 15 | 1·46 | 23 | 2·25 |
| 48 | Karád ... ... | 5 | ·44 | 16 | 1·42 | 18 | 1·61 |
| 49 | Ashta ... ... | ... | ... | ... | ... | 7 | ·78 |
| 50 | Islámpur ... ... | 3 | ·38 | 16 | 2·02 | 42 | 5·31 |
| | *Ratnagiri District.* | | | | | | |
| 51 | Ratnágiri ... ... | 4 | ·23 | 44 | 2·41 | 23 | 1·26 |
| 52 | Vengurla ... ... | 27 | 1·21 | 32 | 1·67 | 45 | 2·35 |
| 53 | Málwan ... ... | 5 | ·22 | 37 | 1·67 | 34 | 1·53 |
| 54 | Chiplun ... ... | ... | ... | 20 | 1·82 | 4 | ·36 |
| | *Belgaum District.* | | | | | | |
| 55 | Belgaum ... ... | 27 | ·35 | 106 | 2·03 | 71 | 1·96 |
| 56 | Gokák ... ... | 1 | ·10 | 25 | 2·50 | 19 | 1·90 |
| 57 | Athni ... ... | ... | ... | 28 | 2·07 | 40 | 2·95 |
| 58 | Nipáni ... ... | ... | ... | 10 | ·84 | 40 | 3·36 |
| 59 | Belgaum Cantonment ... ... | 1 | ·15 | 2 | ·30 | 6 | ·87 |

No. VI (*a*)—*contd.*

| 14 Dysentery. | | 15 Diarrhœa. | | 16 Deaths from child birth. | 17 Deaths under 1 year. | | | 18 Infant mortality rate per 1,000 births. | 19 No. |
|---|---|---|---|---|---|---|---|---|---|
| Deaths. | Ratio. | Deaths. | Ratio. | | Male. | Female. | Total. | | |
| 1 | ·12 | 4 | ·49 | ... | 7 | 6 | 13 | 103·04 | 30 |
| 870 | ·22 | 784 | ·66 | 128 | 4,054 | 3,373 | 7,427 | 314·40 | 31 |
| 3 | ·09 | 48 | 1·30 | 18 | 73 | 87 | 160 | 143·76 | 32 |
| 2 | ·16 | 12 | ·94 | 8 | 28 | 22 | 50 | 129·20 | 33 |
| 15 | 1·36 | ... | ... | 1 | 29 | 25 | 54 | 210·94 | 34 |
| 13 | ·10 | 275 | 2·06 | 47 | 822 | 769 | 1,651 | 553·10 | 35 |
| ... | ... | 25 | 1·79 | ... | 45 | 15 | 60 | 967·74 | 36 |
| 2 | ·17 | 20 | 1·68 | ... | 45 | 54 | 99 | 226·03 | 37 |
| ... | ... | 8 | ·43 | 2 | 26 | 14 | 40 | 191·39 | 38 |
| ... | ... | 11 | 1·05 | ... | 32 | 33 | 65 | 252·92 | 39 |
| ... | ... | 6 | ·82 | 1 | 16 | 16 | 32 | 112·68 | 40 |
| 9 | ·35 | 16 | ·62 | 4 | 34 | 30 | 64 | 345·95 | 41 |
| 3 | ·37 | 10 | 1·25 | ... | 35 | 34 | 69 | 616·07 | 42 |
| ... | ... | 185 | 1·55 | 49 | 655 | 524 | 1,179 | 246·93 | 43 |
| ... | ... | 31 | 1·40 | 2 | 154 | 121 | 275 | 390·07 | 44 |
| 4 | ·16 | 89 | 3·53 | 22 | 284 | 236 | 520 | 543·93 | 45 |
| 2 | ·09 | 40 | 1·78 | 12 | 65 | 58 | 123 | 323·68 | 46 |
| ... | ... | 10 | ·98 | 1 | 18 | 21 | 39 | 122·64 | 47 |
| ... | ... | 10 | ·88 | 4 | 17 | 18 | 35 | 162·79 | 48 |
| ... | ... | 16 | 1·77 | ... | 19 | 18 | 37 | 133·09 | 49 |
| ... | ... | 24 | 3·03 | 1 | 14 | 18 | 32 | 126·48 | 50 |
| 1 | ·05 | 5 | ·27 | 6 | 26 | 23 | 49 | 100·00 | 51 |
| 23 | 1·25 | 11 | ·57 | 4 | 38 | 39 | 77 | 119·20 | 52 |
| 25 | 1·13 | 13 | ·58 | 6 | 29 | 30 | 59 | 98·01 | 53 |
| 8 | ·73 | 8 | ·73 | 2 | 15 | 14 | 29 | 88·41 | 54 |
| 5 | ·14 | 50 | 1·38 | 3 | 81 | 59 | 140 | 121·44 | 55 |
| ... | ... | 33 | 3·30 | ... | 25 | 21 | 46 | 136·09 | 56 |
| 6 | ·44 | 2 | ·14 | ... | 10 | 7 | 17 | 52·47 | 57 |
| ... | ... | 6 | ·50 | ... | 26 | 27 | 53 | 122·12 | 58 |
| 2 | ·30 | 4 | ·60 | 1 | 3 | 5 | 8 | 112·68 | 59 |

| 1 | 2 | 3 | 4 | | 5 | |
|---|---|---|---|---|---|---|
| No. | Districts and Towns. | Population according to Census of 1921. | Enteric Fever. | | Measles. | |
| | | | Deaths. | Ratio. | Deaths. | Ratio. |
| | B.—TOWNS—*contd.* | | | | | |
| | *Dharwar District.* | | | | | |
| 60 | Dhárwár ... ... | 34,327 | 31 | ·90 | 35 | 1·02 |
| 61 | Hubli ... ... | 69,140 | 8 | ·12 | 35 | ·51 |
| 62 | Gadag-Bettigeri ... ... | 41,158 | 8 | ·19 | 42 | 1·02 |
| 63 | Ránebennur ... ... | 13,930 | 2 | ·14 | 4 | ·28 |
| 64 | Nawalgund ... ... | 7,089 | ... | ... | 2 | ·28 |
| | *Bijapur District.* | | | | | |
| 65 | Bijápur ... ... | 32,471 | 21 | ·65 | 2 | ·06 |
| 66 | Bágalkot ... ... | 19,471 | 2 | ·10 | ... | ... |
| 67 | Guledgud ... ... | 14,760 | ... | ... | ... | ... |
| 68 | Ilkal ... ... | 11,856 | 21 | 1·77 | 4 | ·34 |
| | *Kanara District.* | | | | | |
| 69 | Kárwár ... ... | 14,463 | 4 | ·28 | ... | ... |
| 70 | Kumta ... ... | 14,291 | 3 | ·21 | ... | ... |
| 71 | Gokarn ... ... | 8,307 | 3 | ·36 | ... | ... |
| 72 | Honáwar ... ... | 7,035 | 1 | ·14 | ... | ... |
| 73 | Bhatkal ... ... | 7,134 | ... | ... | 2 | ·28 |
| | *Surat District.* | | | | | |
| 74 | Surat ... ... | 117,423 | 33 | ·28 | 22 | ·19 |
| 75 | Bulsar ... ... | 19,681 | 3 | ·15 | 1 | ·05 |
| 76 | Ránder ... ... | 10,547 | ... | ... | ... | ... |
| | *Broach District.* | | | | | |
| 77 | Broach ... ... | 42,626 | ... | ... | 1 | ·02 |
| 78 | Jambusar ... ... | 10,217 | ... | ... | ... | ... |
| 79 | Ankleshwar ... ... | 11,756 | ... | ... | 2 | ·16 |
| | *Kaira District.* | | | | | |
| 80 | Kaira ... ... | 8,277 | ... | ... | ... | ... |
| 81 | Mehmedabad ... ... | 6,336 | ... | ... | ... | ... |
| 82 | Nadiád ... ... | 31,919 | ... | ... | ... | ... |
| 83 | Borsad ... ... | 12,113 | ... | ... | ... | ... |
| 84 | Anand ... ... | 11,024 | ... | ... | ... | ... |
| 85 | Umreth ... ... | 14,024 | ... | ... | ... | ... |
| 86 | Dákore ... ... | 7,990 | ... | ... | ... | ... |
| 87 | Kapadvanj ... ... | 14,794 | ... | ... | ... | ... |

No. VI (*a*)—*contd.*

| 6 Relapsing Fever. | | 7 Kala Azar. | | 8 Malaria. | | 9 Other Fevers. | | 10 Influenza. | |
|---|---|---|---|---|---|---|---|---|---|
| Deaths. | Ratio. | Deaths. | Ratio. | Deaths. | Ratio. | Deaths. | Ratio. | Deaths. | Ratio. |
| ... | ... | ... | ... | 11 | ·32 | 135 | 3·93 | 1 | ·03 |
| ... | ... | ... | ... | 44 | ·64 | 252 | 3·64 | ... | ... |
| ... | ... | ... | ... | 16 | ·38 | 443 | 10·76 | ... | ... |
| ... | ... | ... | ... | 12 | ·31 | 80 | 2·15 | ... | ... |
| ... | ... | ... | ... | 3 | ·42 | 31 | 4·37 | ... | ... |
| ... | ... | ... | ... | 104 | 3·20 | 26 | ·80 | 1 | ·03 |
| ... | ... | ... | ... | 5 | ·26 | 129 | 6·63 | ... | ... |
| ... | ... | ... | ... | 1 | ·07 | 164 | 11·11 | ... | ... |
| ... | ... | ... | ... | 37 | 3·12 | 44 | 3·71 | 5 | ·42 |
| ... | ... | ... | ... | 28 | 2·01 | 2 | ·14 | ... | ... |
| ... | ... | ... | ... | 10 | ·70 | 68 | 4·76 | ... | ... |
| ... | ... | ... | ... | 14 | 1·69 | 56 | 6·76 | ... | ... |
| .. | ... | ... | ... | ... | ... | 41 | 5·83 | ... | ... |
| ... | ... | ... | ... | ... | ... | 55 | 7·71 | ... | ... |
| ... | ... | ... | ... | 209 | 1·78 | 79 | ·67 | 1 | ·01 |
| ... | ... | ... | ... | 2 | ·10 | 47 | 2·39 | ... | ... |
| ... | ... | ... | ... | ... | ... | 117 | 11·09 | ... | ... |
| ... | ... | ... | ... | ... | ... | 288 | 5·51 | ... | ... |
| ... | ... | ... | ... | 117 | 11·45 | 1 | ·10 | ... | ... |
| ... | ... | ... | ... | ... | ... | 210 | 17·86 | ... | ... |
| ... | ... | ... | ... | ... | ... | 69 | 8·34 | ... | ... |
| ... | ... | ... | ... | ... | ... | 86 | 13·79 | ... | ... |
| ... | ... | ... | ... | ... | ... | 489 | 15·32 | ... | ... |
| ... | ... | ... | ... | ... | ... | 186 | 15·35 | ... | ... |
| ... | ... | ... | ... | ... | ... | 176 | 15·97 | ... | ... |
| ... | ... | ... | ... | 117 | 8·34 | 1 | ·07 | ... | ... |
| ... | ... | ... | ... | 5 | ·62 | 112 | 14·02 | 1 | ·13 |
| ... | ... | ... | ... | ... | ... | 283 | 15·75 | ... | ... |

ANNUAL FORM

| No. | Districts and Towns | 11 Pneumonia. | | 12 Phthisis. | | 13 Other Respiratory diseases. | |
|---|---|---|---|---|---|---|---|
| | | Deaths. | Ratio. | Deaths. | Ratio. | Deaths. | Ratio. |
| | B.—TOWNS—*contd.* | | | | | | |
| | *Dharwar District.* | | | | | | |
| 60 | Dhárwár ... ... | 16 | ·47 | 71 | 2·07 | 115 | 3·35 |
| 61 | Hubli ... ... | 14 | ·20 | 126 | 1·82 | 118 | 1·70 |
| 62 | Gadag-Bettigeri ... ... | 25 | ·61 | 76 | 1·85 | 224 | 5·44 |
| 63 | Ranebennur ... ... | ... | ... | 33 | 2·37 | 47 | 3·37 |
| 64 | Nawalgund ... ... | ... | ... | 20 | 2·82 | 8 | 1·12 |
| | *Bijapur District.* | | | | | | |
| 65 | Bijápur ... .. | 6 | ·18 | 60 | 1·85 | 53 | 1·63 |
| 66 | Bágalkot ... ... | ... | ... | 34 | 1·75 | 55 | 2·82 |
| 67 | Guledgud ... ... | ... | ... | 17 | 1·15 | 41 | 2·78 |
| 68 | Ilkal ... ... | ... | ... | 35 | 2·94 | 31 | 2·61 |
| | *Kanara District.* | | | | | | |
| 69 | Kárwar ... ... | 9 | ·62 | 11 | ·76 | 7 | ·48 |
| 70 | Kumta .. .. | 1 | ·07 | 7 | ·49 | 25 | 1·76 |
| 71 | Gokarn ... ... | 6 | ·72 | 20 | 2·41 | ... | ... |
| 72 | Honáwar ... ... | ... | ... | 3 | ·42 | 3 | ·42 |
| 73 | Bhatkal ... ... | 2 | ·28 | 4 | ·56 | 19 | 2·66 |
| | *Surat District.* | | | | | | |
| 74 | Surat ... ... | 897 | 7·64 | 335 | 2·85 | 482 | 4·10 |
| 75 | Bulsar ... ... | 100 | 5·08 | 13 | ·66 | 22 | 1·13 |
| 76 | Ránder ... ... | 3 | ·29 | 55 | 5·22 | 29 | 2·75 |
| | *Broach District.* | | | | | | |
| 77 | Broach ... ... | 29 | ·68 | 19 | ·46 | 269 | 6·32 |
| 78 | Jambusar ... ... | 8 | ·78 | 8 | ·78 | 90 | 8·81 |
| 79 | Ankleshwar ... ... | 7 | ·60 | 15 | 1·28 | 38 | 3·23 |
| | *Kaira District.* | | | | | | |
| 80 | Kaira ... ... | ... | ... | 17 | 2·05 | 73 | 8·82 |
| 81 | Mehmedabad ... ... | 3 | ·48 | 13 | 2·09 | 31 | 4·97 |
| 82 | Nadiád ... ... | 206 | 6·45 | 87 | 2·73 | 51 | 1·60 |
| 83 | Borsad ... ... | ... | ... | 13 | 1·07 | 27 | 2·23 |
| 84 | Anand ... ... | 7 | ·63 | 4 | ·36 | 7 | ·63 |
| 85 | Umreth ... ... | ... | ... | 12 | ·86 | 223 | 15·90 |
| 86 | Dákore .. ... | 9 | 1·13 | 14 | 1·75 | 56 | 7·01 |
| 87 | Kapadvanj ... ... | 6 | ·40 | 31 | 2·10 | 47 | 3·18 |

No. VI (*a*)—*contd.*

| 14 | | 15 | | 16 | 17 | | | 18 | 19 |
|---|---|---|---|---|---|---|---|---|---|
| Dysentery. | | Diarrhœa. | | Deaths from child birth. | Deaths under 1 year. | | | Infant mortality rate per 1,000 births. | No. |
| Deaths. | Ratio. | Deaths. | Ratio. | | Male | Female. | Total | | |
| 5 | ·15 | 45 | 1·31 | 16 | 82 | 73 | 155 | 124·90 | 60 |
| 1 | ·01 | 37 | ·54 | 11 | 137 | 96 | 233 | 117·50 | 61 |
| 11 | ·27 | 64 | 1·55 | ... | 152 | 128 | 280 | 135·92 | 62 |
| 5 | ·36 | 6 | ·42 | 3 | 47 | 47 | 94 | 155·37 | 63 |
| ... | ... | 13 | 1·83* | ... | 14 | 14 | 28 | 140·70 | 64 |
| 1 | ·03 | 39 | 1·20 | ... | 84 | 62 | 146 | 125·85 | 65 |
| 1 | ·05 | 32 | 1·68 | 3 | 85 | 83 | 168 | 211·85 | 66 |
| ... | ... | 1 | ·07 | 4 | 70 | 61 | 131 | 200·00 | 67 |
| ... | ... | 1 | ·08 | ... | 59 | 35 | 94 | 222·75 | 68 |
| 7 | ·48 | 5 | ·35 | 3 | 13 | 12 | 25 | 79·37 | 69 |
| 2 | ·14 | 13 | ·91 | 7 | 30 | 17 | 47 | 132·77 | 70 |
| 1 | ·12 | 21 | 2·53 | 3 | 13 | 14 | 27 | 112·50 | 71 |
| ... | ... | 14 | 1·99 | 1 | 13 | 5 | 18 | 71·71 | 72 |
| 34 | 4·77 | 22 | 3·08 | 9 | 14 | 13 | 27 | 99·26 | 73 |
| 55 | ·47 | 312 | 2·66 | 59 | 802 | 839 | 1,641 | 348·70 | 74 |
| 11 | ·56 | 3 | ·15 | 9 | 26 | 37 | 63 | 120·69 | 75 |
| ... | ... | ... | ... | 4 | 29 | 25 | 54 | 167·18 | 76 |
| 7 | ·16 | 22 | ·51 | 52 | 143 | 133 | 276 | 142·56 | 77 |
| 1 | ·10 | 3 | ·29 | 1 | 42 | 49 | 91 | 189·98 | 78 |
| 1 | ·08 | 3 | ·26 | ... | 34 | 50 | 84 | 201·44 | 79 |
| 1 | ·12 | 11 | 1·33 | 1 | 18 | 13 | 31 | 143·52 | 80 |
| 4 | ·64 | 10 | 1·60 | ... | 34 | 30 | 64 | 241·51 | 81 |
| 5 | ·16 | 2 | ·06 | 17 | 190 | 143 | 333 | 298·39 | 82 |
| 44 | 3·63 | 3 | ·25 | ... | 85 | 62 | 147 | 247·47 | 83 |
| 6 | ·54 | 1 | ·09 | 1 | 25 | 21 | 46 | 141·10 | 84 |
| 4 | ·29 | ... | ... | ... | 50 | 61 | 111 | 191·71 | 85 |
| 2 | ·25 | 22 | 2·75 | 3 | 50 | 56 | 106 | 340·84 | 86 |
| 1 | ·07 | 11 | ·74 | 1 | 71 | 40 | 111 | 210·23 | 87 |

ANNUAL FORM

| 1 | 2 | 3 | 4 | | 5 | |
|---|---|---|---|---|---|---|
| No. | Districts and Towns. | Population according to Census of 1921. | Enteric Fever. | | Measles. | |
| | | | Deaths. | Ratio. | Deaths. | Ratio. |
| | B.—TOWNS—*contd.* | | | | | |
| | *Panch Mahals District.* | | | | | |
| 88 | Godhra ... ... | 26,969 | ... | ... | ... | ... |
| 89 | Dohad ... ... | 16,071 | ... | ... | 1 | ·06 |
| | *Ahmedabad District.* | | | | | |
| 90 | Ahmedabad ... ... | 270,599 | ... | ... | 27 | ·10 |
| 91 | Dhandhuka ... ... | 8,056 | ... | ... | 1 | ·12 |
| 92 | Viramgaon ... ... | 26,252 | ... | ... | ... | ... |
| 93 | Dholka ... | 12,513 | ... | ... | ... | ... |
| 94 | Ahmedabad Cantonment ... ... | 1,745 | ... | ... | ... | ... |
| | *Karachi District.* | | | | | |
| 95 | Karáchi ... ... | 199,014 | 26 | ·13 | 153 | ·77 |
| 96 | Tatta ... ... | 8,470 | ... | ... | ... | ... |
| 97 | Kotri ... ... | 9,072 | 2 | ·23 | ... | ... |
| 98 | Karáchi Cantonment ... ... | 6,525 | 1 | ·15 | ... | ... |
| | *Hyderabad District.* | | | | | |
| 99 | Hyderabad ... ... | 72,625 | 24 | ·33 | 8 | ·12 |
| 100 | Halla ... ... | 5,757 | ... | ... | ... | ... |
| 101 | Matiari ... ... | 4,638 | ... | ... | ... | ... |
| 102 | Hyderabad Cantonment ... ... | 3,760 | 1 | ·26 | ... | ... |
| | *Thar and Parkar District.* | | | | | |
| 103 | Umarkot ... ... | 4,199 | ... | ... | ... | ... |
| 104 | Mirpurkhas ... ... | 5,765 | ... | ... | 2 | ·35 |
| | *Nawabshah District.* | | | | | |
| 105 | Nawábsháh ... ... | 2,771 | ... | ... | ... | ... |
| 106 | Tando Adam ... ... | 12,966 | 4 | ·31 | ... | ... |
| | *Larkana District.* | | | | | |
| 107 | Lárkána ... ... | 17,700 | 26 | 1·48 | 5 | ·28 |
| 108 | Kambar ... ... | 7,613 | 23 | 3·02 | 4 | ·53 |
| 109 | Ratodero ... ... | 5,565 | ... | ... | ... | ... |
| 110 | Sehwan ... ... | 4,423 | 2 | ·45 | ... | ... |

No. VI (*a*)—*contd.*

| 6 Relapsing Fever. | | 7 Kala Azar. | | 8 Malaria. | | 9 Other Fevers. | | 10 Influenza. | |
|---|---|---|---|---|---|---|---|---|---|
| Deaths. | Ratio. | Deaths. | Ratio. | Deaths. | Ratio. | Deaths. | Ratio. | Deaths. | Ratio. |
| ... | ... | ... | ... | ... | ... | 450 | 16·68 | ... | ... |
| ... | ... | ... | ... | ... | ... | 307 | 19·11 | ... | ... |
| ... | ... | ... | ... | ... | ... | 3,252 | 12·02 | 4 | ·01 |
| ... | ... | ... | ... | ... | ... | 126 | 15·64 | ... | ... |
| ... | ... | ... | ... | ... | ... | 351 | 13·37 | ... | ... |
| ... | ... | ... | ... | 55 | 4·39 | 180 | 14·38 | ... | ... |
| ... | ... | ... | ... | ... | ... | 19 | 10·89 | ... | ... |
| ... | ... | ... | ... | 36 | ·18 | 247 | 1·24 | 1 | ·00 |
| ... | .. | ... | ... | 67 | 7·90 | 55 | 6·50 | ... | ... |
| ... | ... | ... | ... | 62 | 6·82 | 1 | ·11 | ... | ... |
| ... | ... | ... | ... | 3 | ·46 | 26 | 3·98 | ... | ... |
| ... | ... | ... | ... | 203 | 2·79 | 115 | 1·58 | 2 | ·03 |
| ... | ... | ... | ... | 13 | 2·26 | 18 | 3·13 | ... | ... |
| ... | ... | ... | ... | 27 | 5·82 | 53 | 11·43 | ... | ... |
| ... | ... | ... | ... | ... | ... | 19 | 5·06 | ... | ... |
| .. | ... | ... | ... | 21 | 5·00 | ... | ... | ... | ... |
| ... | ... | ... | ... | 55 | 9·55 | 8 | 1·37 | ... | ... |
| ... | ... | ... | ... | 12 | 4·33 | 24 | 8·66 | ... | ... |
| ... | ... | ... | ... | 89 | 6·86 | 3 | ·23 | ... | ... |
| ... | ... | ... | ... | 118 | 6·66 | ... | ... | ... | ... |
| ... | ... | ... | ... | 34 | 4·46 | 76 | 9·98 | ... | ... |
| ... | ... | ... | ... | 63 | 11·32 | 57 | 10·24 | ... | ... |
| ... | ... | ... | ... | 19 | 4·29 | ... | ... | ... | ... |

ANNUAL FORM

| 1 | 2 | 11 | | 12 | | 13 | |
|---|---|---|---|---|---|---|---|
| No. | Districts and Towns. | Pneumonia. | | Phthisis. | | Other Respiratory Diseases. | |
| | | Deaths. | Ratio. | Deaths. | Ratio. | Deaths. | Ratio. |
| | B—TOWNS—*continued.* | | | | | | |
| | *Panch Mahals District.* | | | | | | |
| 88 | Godhra ... ... | 10 | ·37 | 9 | ·33 | 39 | 1·45 |
| 89 | Dohad ... ... | ... | ... | 2 | ·12 | 4 | ·25 |
| | *Ahmedabad District.* | | | | | | |
| 90 | Ahmedabad ... ... | 184 | ·68 | 983 | 3·63 | 2,908 | 10·75 |
| 91 | Dhandhuka ... ... | 1 | ·12 | 15 | 1·86 | 69 | 8·57 |
| 92 | Viramgaon ... ... | 25 | ·95 | 49 | 1·87 | 233 | 8·87 |
| 93 | Dholka ... ... | 2 | ·16 | 15 | 1·20 | 39 | 3·12 |
| 94 | Ahmedabad Cantonment ... ... | ... | ... | 1 | ·57 | 3 | 1·72 |
| | *Karachi District.* | | | | | | |
| 95 | Karachi ... ... | 1,362 | 7·00 | 482 | 2·42 | 419 | 2·11 |
| 96 | Tatta ... ... | 17 | 2·03 | ... | ... | 22 | 2·60 |
| 97 | Kotri ... ... | 32 | 3·58 | 13 | 1·43 | 8 | ·88 |
| 98 | Karachi Cantonment ... ... | 4 | ·62 | ... | ... | ... | ... |
| | *Hyderabad District.* | | | | | | |
| 99 | Hyderabad ... ... | 546 | 7·52 | 112 | 1·54 | 168 | 2·31 |
| 100 | Halla ... ... | ... | ... | 3 | ·52 | ... | ... |
| 101 | Matiari ... ... | 25 | 5·38 | 2 | ·44 | ... | ... |
| 102 | Hyderabad Cantonment ... ... | 5 | 1·33 | ... | ... | ... | ... |
| | *Thar and Parkar District.* | | | | | | |
| 103 | Umarkot ... ... | 81 | 7·39 | 6 | 1·43 | 3 | ·71 |
| 104 | Mirpurkhas ... ... | 16 | 2·80 | 11 | 1·89 | 7 | 1·20 |
| | *Nawabshah District.* | | | | | | |
| 105 | Nawábsháh ... ... | ... | ... | ... | ... | ... | ... |
| 106 | Tando Adam ... ... | 80 | 2·32 | 16 | 1·23 | 13 | 1·00 |
| | *Larkana District.* | | | | | | |
| 107 | Lárkána ... ... | 42 | 2·37 | 8 | ·45 | 41 | 2·33 |
| 108 | Kambar ... ... | 10 | 1·31 | 9 | 1·18 | 8 | 1·05 |
| 109 | Ratodero ... ... | ... | ... | ... | ... | ... | ... |
| 110 | Sehwan ... ... | 24 | 5·42 | 7 | 1·59 | 1 | ·22 |

No. VI (*a*)—*contd.*

| 14 | | 15 | | 16 | 17 | | | 18 | 19 |
|---|---|---|---|---|---|---|---|---|---|
| Dysentery. | | Diarrhœa. | | Deaths from child birth. | Deaths under 1 year. | | | Infant mortality rate per 1,000 births. | No. |
| Deaths. | Ratio. | Deaths. | Ratio. | | Male. | Female. | Total. | | |
| ... | ... | 1 | ·04 | ... | 91 | 74 | 165 | 153·92 | 88 |
| 1 | ·06 | ... | ... | 11 | 51 | 39 | 90 | 179·64 | 89 |
| 123 | ·45 | 322 | 1·19 | 179 | 2,069 | 1,845 | 3,914 | 350·94 | 90 |
| ... | ... | 9 | 1·12 | ... | 46 | 36 | 82 | 224·04 | 91 |
| 2 | ·08 | 5 | ·19 | 33 | 138 | 106 | 244 | 352·60 | 92 |
| 1 | ·08 | 7 | ·56 | 1 | 46 | 49 | 95 | 190·38 | 93 |
| 1 | ·57 | ... | ... | ... | 1 | 4 | 5 | 200·00 | 94 |
| 61 | ·31 | 250 | 1·25 | 90 | 1,109 | 969 | 2,048 | 190·42 | 95 |
| 8 | ·94 | 3 | ·36 | ... | 14 | 21 | 35 | 286·88 | 96 |
| ... | ... | 2 | ·23 | 4 | 13 | 11 | 24 | 192·00 | 97 |
| 1 | ·15 | 2 | ·31 | 1 | 5 | 10 | 15 | 65·50 | 98 |
| 41 | ·56 | 60 | ·83 | 47 | 316 | 261 | 577 | 190·67 | 99 |
| ... | ... | ... | ... | 3 | 7 | 7 | 14 | 103·33 | 100 |
| ... | ... | ... | ... | 4 | 14 | 9 | 23 | 225·49 | 101 |
| ... | ... | ... | ... | ... | 8 | 2 | 10 | 454·54 | 102 |
| 1 | ·24 | 3 | ·71 | 3 | 6 | 10 | 16 | 152·38 | 103 |
| 1 | ·17 | 1 | ·17 | 3 | 10 | 3 | 13 | 108·33 | 104 |
| ... | ... | ... | ... | ... | 5 | 2 | 7 | 132·07 | 105 |
| ... | ... | 1 | ·08 | 3 | 31 | 15 | 46 | 141·97 | 106 |
| 2 | ·11 | 17 | ·96 | 24 | 79 | 79 | 158 | 217·93 | 107 |
| ... | ... | 4 | ·53 | 8 | 23 | 19 | 42 | 216·49 | 108 |
| ... | ... | ... | ... | 3 | 19 | 13 | 32 | 140·35 | 109 |
| ... | ... | ... | ... | 4 | 5 | 1 | 6 | 90·91 | 110 |

| 1 | 2 | 3 | 4 | | 5 | |
|---|---|---|---|---|---|---|
| No. | Districts and Towns. | Population according to Census of 1921. | Enteric Fever. | | Measles. | |
| | | | Deaths. | Ratio. | Deaths. | Ratio. |
| | B—TOWNS—*concld.* | | | | | |
| | *Sukkur District.* | | | | | |
| 111 | Sukkur ... ... | 42,046 | 8 | ·19 | 8 | ·19 |
| 112 | Shikárpur ... ... | 55,347 | 94 | 1·70 | 42 | ·76 |
| 113 | Rohri ... ... | 11,378 | ... | ... | 1 | ·09 |
| 114 | Garhi Yasin ... ... | 6,375 | ... | ... | ... | ... |
| | *Upper Sind Frontier District.* | | | | | |
| 115 | Jacobabad ... ... | 10,578 | ... | ... | ... | ... |
| | Total of Towns ..... | 3,743,785 | 634 | ·17 | 942 | ·25 |
| | Total for the Presidency ... | 19,165,614 | 2,254 | ·12 | 2,961 | ·15 |

No. VI (*a*)—*concld.*

| 6 Relapsing Fever. | | 7 Kala Azar. | | 8 Malaria. | | 9 Other Fevers. | | 10 Influenza. | |
|---|---|---|---|---|---|---|---|---|---|
| Deaths. | Ratio. | Deaths. | Ratio. | Deaths. | Ratio. | Deaths. | Ratio. | Deaths. | Ratio. |
| ... | ... | ... | ... | 3 | ·07 | 556 | 13·22 | ... | ... |
| ... | ... | ... | ... | ... | ... | 384 | 6·94 | ... | ... |
| ... | ... | ... | ... | 178 | 15·64 | ... | ... | ... | ... |
| ... | ... | ... | ... | 166 | 24·47 | 1 | ·16 | ... | ... |
| ... | ... | ... | ... | ... | ... | 93 | 8·79 | ... | ... |
| ... | ... | ... | ... | 2,748 | ·74 | 19,239 | 5·14 | 100 | ·03 |
| ... | ... | ... | ... | 44,683 | 2·33 | 156,230 | 8·15 | 228 | ·01 |

| 1 | 2 | 11 | | 12 | | 13 | |
|---|---|---|---|---|---|---|---|
| | | Pneumonia | | Phthisis. | | Other Respiratory Diseases. | |
| No. | Districts and Towns. | Deaths. | Ratio. | Deaths. | Ratio. | Deaths. | Ratio. |
| | B.—TOWNS—*concluded.* | | | | | | |
| | *Sukkur District.* | | | | | | |
| 111 | Sukkur ... ... | ·34 | ·81 | 16 | ·38 | ... | ... |
| 112 | Shikárpur ... ... | 45 | ·81 | 36 | ·65 | 74 | 1·34 |
| 113 | Rohri ... ... | 13 | 1·14 | 1 | ·09 | 9 | ·79 |
| 114 | Gárhi Yasin ... ... | ... | ... | ... | ... | ... | ... |
| | *Upper Sind Frontier District.* | | | | | | |
| 115 | Jacobabad ... ... | 7 | ·67 | ... | ... | ... | ... |
| | Total of Towns ... | 13,655 | 3·65 | 6,422 | 1·18 | 11,691 | 3·12 |
| | Total for the Presidency ... | 20,991 | 1·09 | 21,598 | 1·13 | 54,849 | 2·86 |

No. VI.(a)—*concld.*

| 14 | | 15 | | 16 | 17 | | | 18 | 19 |
|---|---|---|---|---|---|---|---|---|---|
| Dysentery. | | Diarrhœa. | | Deaths from child birth. | Deaths under 1 year. | | | Infant mortality rate per 1,000 births. | No. |
| Deaths. | Ratio. | Deaths. | Ratio. | | Male. | Female. | Total. | | |
| 4 | ·10 | 14 | ·33 | 32 | 105 | 109 | 214 | 165·25 | 111 |
| 5 | ·09 | 7 | ·13 | 53 | 283 | 247 | 530 | 282·82 | 112 |
| 8 | ·70 | 7 | ·61 | 19 | 56 | 35 | 91 | 232·69 | 113 |
| ... | ... | ... | ... | 7 | 26 | 22 | 48 | 223·25 | 114 |
| ... | ... | 2 | ·19 | 2 | 18 | 23 | 41 | 214·66 | 115 |
| 1,118 | ·30 | 3,592 | ·99 | 1,167 | 15,298 | 13,134 | 28,432 | 260·71 | |
| 3,867 | ·20 | 19,504 | 1·02 | 4,245 | 71,611 | 60,302 | 131,913 | 180·30 | |

# ANNUAL FORM No. VII.—DEATHS *registered from* CHOLERA *in the*

| 1 | 2 | 3 | | 4 | | 5 | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | CIRCLES OF REGISTRATION. | | VILLAGES. | | | | | | | |
| No. | Districts. | Number in each District. | Number from which deaths from cholera were reported. | Number in each District. | Number from which deaths from cholera were reported. | January. | February. | March. | April. | May. | June. |
| | *Western Registration District.* | | | | | | | | | | |
| 1 | East Khándesh ... | 23 | 22 | 1,478 | 121 | ... | ... | 2 | ... | ... | 2 |
| 2 | West Khándesh ... | 10 | 10 | 1,242 | 58 | ... | ... | ... | 1 | 2 | ... |
| 3 | Násik ... ... ... | 19 | 14 | 1,667 | 119 | 6 | ... | ... | ... | ... | ... |
| 4 | Thána ... ... ... | 19 | 6 | 1,546 | 9 | ... | ... | ... | 1 | ... | 2 |
| 5 | Bombay Suburban ... | 5 | 2 | 86 | 4 | ... | ... | ... | 7 | 1 | ... |
| 6 | Kolába ... ... ... | 13 | 2 | 1,482 | 9 | ... | ... | ... | ... | ... | ... |
| 7 | City of Bombay ... | 1 | 1 | 1 | 1 | 1 | ... | 3 | 1 | ... | ... |
| | *Central Registration District.* | | | | | | | | | | |
| 8 | Ahmednagar... ... | 15 | 13 | 1,346 | 103 | ... | ... | 1 | ... | ... | 5 |
| 9 | Poona ... ... ... | 20 | 13 | 1,157 | 130 | ... | ... | 1 | 31 | 58 | 167 |
| 10 | Sholápur ... ... | 10 | 10 | 719 | 111 | ... | ... | ... | 6 | 14 | 69 |
| 11 | Sátára ... ... ... | 18 | 15 | 1,341 | 217 | ... | ... | ... | 11 | 30 | 239 |
| 12 | Ratnágiri ... ... | 15 | 6 | 1,305 | 17 | ... | ... | ... | ... | ... | 3 |
| | *Southern Registration District.* | | | | | | | | | | |
| 13 | Belgaum ... ... | 15 | 7 | 1,069 | 29 | ... | 4 | 1 | 1 | ... | ... |
| 14 | Dhárwár ... ... | 18 | 4 | 1,277 | 4 | ... | ... | 2 | 2 | ... | ... |
| 15 | Bijápur ... ... | 13 | 5 | 1,128 | 25 | 3 | ... | ... | ... | ... | ... |
| 16 | Kánara ... ... | 16 | 3 | 1,264 | 11 | ... | ... | ... | ... | ... | ... |
| | *Gujarat Registration District.* | | | | | | | | | | |
| 17 | Surat ... ... ... | 12 | 5 | 782 | 7 | ... | ... | ... | ... | ... | ... |
| 18 | Broach ... ... | 9 | ... | 404 | ... | ... | ... | ... | ... | ... | ... |
| 19 | Kaira ... ... ... | 15 | ... | 579 | ... | ... | ... | ... | ... | ... | ... |
| 20 | Panch Maháls ... | 7 | ... | 668 | ... | ... | ... | ... | ... | ... | ... |
| 21 | Ahmedabad ... ... | 13 | ... | 871 | ... | ... | ... | ... | ... | ... | ... |
| | *Sind Registration District.* | | | | | | | | | | |
| 22 | Karáchi ... ... | 16 | 1 | 793 | 1 | ... | ... | ... | ... | 1 | ... |
| 23 | Hyderabad ... ... | 11 | ... | 862 | ... | ... | ... | ... | ... | ... | ... |
| 24 | Thar and Párkar ... | 13 | ... | 904 | ... | ... | ... | ... | ... | ... | ... |
| 25 | Nawábsháh ... ... | 9 | ... | 731 | ... | ... | ... | ... | ... | ... | ... |
| 26 | Lárkána ... ... | 15 | 8 | 763 | 31 | ... | ... | ... | ... | ... | ... |
| 27 | Sukkur... ... ... | 12 | 2 | 671 | 2 | ... | ... | ... | ... | ... | ... |
| 28 | Upper Sind Frontier. | 6 | 3 | 410 | 3 | ... | ... | ... | ... | ... | ... |
| | Total for the Presidency ... | 368 | 152 | 26,546 | 1,102 | 10 | 4 | 10 | 55 | 106 | 487 |

DISTRICTS *of the* BOMBAY PRESIDENCY *during each month of the year 1928*

| July. | August. | September. | October. | November. | December. | 6 TOTAL. Male. | Female. | Total. | 7 RATIO OF DEATHS PER 1,000 OF POPULATION. Male. | Female. | Total. | 8 Mean ratio per 1,000 of previous five years. | 9 No. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 179 | 530 | 63 | 16 | 7 | ... | 390 | 409 | 799 | ·71 | ·77 | ·74 | ·60 | 1 |
| 20 | 208 | 70 | 9 | 21 | 9 | 173 | 167 | 340 | ·55 | ·55 | ·55 | ·15 | 2 |
| 206 | 169 | 159 | 159 | 32 | 2 | 354 | 379 | 733 | ·85 | ·93 | ·89 | ·40 | 3 |
| 4 | 15 | ... | 12 | 12 | ... | 22 | 24 | 46 | ·06 | ·06 | ·06 | ·09 | 4 |
| | ... | 1 | 5 | ... | ... | 6 | 3 | 9 | ·07 | ·05 | ·06 | ·03 | 5 |
| ... | 22 | 13 | 1 | ... | ... | 16 | 20 | 36 | ·06 | ·07 | ·06 | ·12 | 6 |
| 5 | 7 | 5 | 6 | 3 | 1 | 24 | 8 | 32 | ·03 | ·02 | ·03 | ·05 | 7 |
| 361 | 301 | 77 | 127 | 37 | ... | 439 | 470 | 909 | 1·21 | 1·30 | 1·26 | ·99 | 8 |
| 476 | 140 | 22 | 4 | 19 | 1 | 465 | 454 | 919 | ·93 | ·94 | ·93 | ·71 | 9 |
| 369 | 257 | 106 | 31 | 1 | ... | 458 | 386 | 844 | 1·20 | 1·07 | 1·14 | 1·49 | 10 |
| 847 | 473 | 49 | 7 | ... | ... | 805 | 871 | 1,676 | 1·58 | 1·70 | 1·64 | 1·14 | 11 |
| 8 | 19 | 20 | 5 | 1 | ... | 26 | 30 | 56 | ·05 | ·05 | ·05 | ·01 | 12 |
| 21 | 22 | 10 | 7 | 1 | 16 | 44 | 39 | 83 | ·09 | ·08 | ·09 | 1·66 | 13 |
| 3 | ... | ... | ... | 1 | ... | 5 | 3 | 8 | ·01 | ·01 | ·01 | 1·06 | 14 |
| 43 | 27 | 21 | 8 | ... | 2 | 60 | 44 | 104 | ·15 | ·11 | ·13 | 1·14 | 15 |
| 5 | ... | ... | ... | 5 | 25 | 20 | 15 | 35 | ·10 | ·08 | ·09 | ·10 | 16 |
| ... | 10 | 11 | 16 | ... | 1 | 16 | 22 | 38 | ·05 | ·07 | ·06 | ·03 | 17 |
| ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | 18 |
| ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | 19 |
| ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | 20 |
| ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ·03 | 21 |
| ... | ... | ... | ... | ... | ... | 1 | .. | 1 | ·00 | ... | ·00 | ·04 | 22 |
| ... | ... | ... | ... | ... | ... | .. | ... | ... | ... | ... | ... | ·01 | 23 |
| ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ·00 | 24 |
| ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ·00 | 25 |
| ... | ... | 35 | 80 | 63 | 15 | 113 | 80 | 193 | ·34 | ·29 | ·32 | ·03 | 26 |
| ... | ... | 1 | 1 | 7 | ... | 7 | 2 | 9 | ·02 | ·01 | ·02 | ·04 | 27 |
| ... | ... | 7 | 2 | 2 | ... | 6 | 5 | 11 | ·04 | ·05 | ·05 | ·01 | 28 |
| 2,559 | 2,200 | 670 | 496 | 212 | 72 | 3,450 | 3,431 | 6,881 | ·34 | ·38 | ·36 | ·45 | |

ANNUAL FORM No. VIII.—DEATHS *registered from* SMALL-POX *in the*

| 1 | 2 | 3 | | 4 | | 5 | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | CIRCLES OF REGISTRATION. | | VILLAGES. | | | | | | | |
| No. | Districts. | Number in each District. | Number from which deaths from Small-pox were reported. | Number in each District. | Number from which deaths from Small-pox were reported. | January. | February. | March. | April. | May. | June. |
| | *Western Registration District* | | | | | | | | | | |
| 1 | East Khándesh ... | 23 | 10 | 1,478 | 120 | 10 | 17 | 50 | 64 | 70 | 65 |
| 2 | West Khándesh ... | 10 | 9 | 1,242 | 64 | 3 | 10 | 8 | 20 | 21 | 26 |
| 3 | Násik ... ... | 19 | 17 | 1,667 | 191 | 143 | 177 | 144 | 117 | 102 | 67 |
| 4 | Thána ... ... | 19 | 14 | 1,546 | 26 | 1 | 3 | 11 | 15 | 12 | 7 |
| 5 | Bombay Suburbau ... | 5 | 3 | 86 | 8 | ... | 1 | 1 | ... | 8 | 2 |
| 6 | Kolába ... ... | 13 | 10 | 1,482 | 85 | 3 | 9 | 36 | 37 | 25 | 45 |
| 7 | City of Bombay ... | 1 | 1 | 1 | 1 | 14 | 55 | 137 | 135 | 101 | 55 |
| | *Central Registration District* | | | | | | | | | | |
| 8 | Ahmednagar ... | 15 | 15 | 1,346 | 190 | 57 | 98 | 129 | 104 | 63 | 41 |
| 9 | Poona ... ... | 20 | 16 | 1,157 | 60 | 10 | 13 | 20 | 21 | 18 | 11 |
| 10 | Sholápur ... ... | 10 | 10 | 719 | 50 | 55 | 97 | 105 | 53 | 49 | 19 |
| 11 | Sátára ... ... | 18 | 17 | 1,341 | 118 | 30 | 36 | 44 | 44 | 39 | 35 |
| 12 | Ratnágiri ... ... | 15 | 14 | 1,305 | 68 | 33 | 38 | 38 | 22 | 24 | 35 |
| | *Southern Registration District* | | | | | | | | | | |
| 13 | Belgaum ... ... | 15 | 10 | 1,069 | 129 | 45 | 36 | 58 | 52 | 42 | 47 |
| 14 | Dhárwár ... ... | 18 | 17 | 1,277 | 113 | 16 | 25 | 53 | 47 | 43 | 30 |
| 15 | Bijápur ... ... | 15 | 9 | 1,128 | 23 | 1 | 2 | 2 | 5 | 2 | 1 |
| 16 | Kánara ... ... | 16 | 8 | 1,264 | 26 | 9 | 5 | 5 | 12 | 13 | 14 |
| | *Gujarát Registration District* | | | | | | | | | | |
| 17 | Surat ... ... ... | 12 | 8 | 782 | 16 | 3 | 4 | 20 | 8 | 2 | ... |
| 18 | Broach ... ... ... | 9 | 4 | 404 | 6 | ... | 1 | 8 | 6 | 1 | ... |
| 19 | Kaira ... ... ... | 15 | 1 | 579 | 1 | ... | ... | ... | ... | 1 | ... |
| 20 | Panch Maháls ... | 7 | 2 | 668 | 4 | 1 | ... | ... | ... | ... | 3 |
| 21 | Ahmedabad ... ... | 13 | 4 | 871 | 12 | 4 | 5 | 7 | 5 | 8 | 2 |
| | *Sind Registration District* | | | | | | | | | | |
| 22 | Karáchi ... ... | 16 | 2 | 793 | 2 | ... | ... | 1 | ... | 1 | ... |
| 23 | Hyderabad ... ... | 11 | 4 | 862 | 4 | 2 | ... | 11 | 2 | 1 | ... |
| 24 | Thar and Párkar ... | 13 | 4 | 904 | 4 | 3 | ... | 1 | ... | ... | ... |
| 25 | Nawábsháh ... ... | 9 | 5 | 731 | 11 | 25 | 19 | 6 | 2 | 3 | 2 |
| 26 | Lárkána ... ... | 15 | 6 | 763 | 14 | 7 | 1 | ... | 4 | 15 | 6 |
| 27 | Sukkur ... ... | 12 | 3 | 671 | 1 | ... | ... | ... | ... | ... | ... |
| 28 | Upper Sind Frontier . | 6 | ... | 410 | ... | ... | ... | ... | ... | ... | ... |
| | Total for the Presidency ... | 368 | 229 | 26,546 | 1,347 | 475 | 652 | 895 | 778 | 664 | 514 |

N.B.—Small-pox should *not* include Measles, Chicken-Pox, *etc.*

DISTRICTS *of the* BOMBAY PRESIDENCY *during each month of the year 1928*

| July. | August. | September. | October. | November. | December. | 6 — Total. Male. | Female. | Total. | 7 — Number of these Deaths among Children. Under 1 year. | Under 10 years. | 8 — Ratio of Deaths per 1,000 of Population. Male. | Female. | Total. | 9 — Mean ratio per 1,000 of previous five years. | 10 — No. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 39 | 26 | 9 | 9 | 5 | 17 | 181 | 200 | 381 | 113 | 154 | ·33 | ·38 | ·35 | ·54 | 1 |
| 10 | 7 | 12 | 11 | 32 | 58 | 105 | 113 | 218 | 73 | 143 | ·34 | ·37 | ·36 | ·70 | 2 |
| 43 | 15 | 17 | 11 | 20 | 31 | 420 | 467 | 887 | 362 | 457 | 1·00 | 1·12 | 1·07 | ·42 | 3 |
| 3 | 7 | 4 | 3 | 10 | 8 | 50 | 34 | 84 | 22 | 52 | ·13 | ·09 | ·11 | ·27 | 4 |
| 1 | ... | 1 | ... | ... | 3 | 11 | 6 | 17 | 1 | 10 | ·13 | ·09 | ·11 | ·21 | 5 |
| 21 | 14 | 16 | 9 | 5 | 8 | 114 | 114 | 228 | 65 | 135 | ·41 | ·40 | ·41 | ·33 | 6 |
| 41 | 23 | 14 | 9 | 2 | 9 | 331 | 264 | 595 | 126 | 263 | ·44 | ·67 | ·52 | ·62 | 7 |
| 24 | 15 | 5 | 7 | 3 | 19 | 262 | 303 | 565 | 180 | 288 | ·72 | ·84 | ·78 | ·12 | 8 |
| 15 | 10 | 10 | 12 | 24 | 23 | 93 | 97 | 190 | 67 | 88 | ·19 | ·20 | ·19 | ·3 | 9 |
| 13 | 4 | 6 | 4 | 7 | 13 | 221 | 204 | 425 | 86 | 283 | ·58 | ·57 | ·57 | ·26 | 10 |
| 30 | 24 | 7 | 4 | 6 | 9 | 153 | 155 | 308 | 103 | 115 | ·30 | ·30 | ·30 | ·15 | 11 |
| 16 | 11 | 3 | 1 | 2 | 14 | 127 | 111 | 238 | 45 | 79 | ·24 | ·18 | ·21 | ·31 | 12 |
| 38 | 21 | 23 | 9 | 8 | 9 | 164 | 219 | 383 | 84 | 144 | ·34 | ·47 | ·40 | ·15 | 13 |
| 23 | 20 | 8 | 8 | 27 | 36 | 163 | 173 | 336 | 82 | 137 | ·31 | ·34 | ·32 | ·01 | 14 |
| 5 | 3 | 7 | 4 | 6 | .. | 23 | 24 | 47 | 15 | 25 | ·08 | ·08 | ·08 | ·08 | 15 |
| 8 | 10 | 3 | 3 | ... | .. | 37 | 45 | 82 | 7 | 30 | ·18 | ·23 | ·20 | ·29 | 16 |
| 3 | ... | ... | ... | ... | ... | 23 | 17 | 40 | 18 | 15 | ·06 | ·05 | ·06 | ·59 | 17 |
| 1 | 1 | ... | ... | ... | ... | 10 | 8 | 18 | 6 | 9 | ·06 | ·05 | ·06 | ·29 | 18 |
| ... | ... | ... | ... | ... | ... | ... | 1 | 1 | ... | 1 | ... | ·00 | ·00 | ·10 | 19 |
| 1 | 1 | ... | ... | ... | ... | 3 | 3 | 6 | ... | 3 | ·02 | ·02 | ·02 | ·08 | 20 |
| 2 | ... | ... | ... | 1 | 3 | 17 | 20 | 37 | 5 | 22 | ·04 | ·05 | ·04 | ·29 | 21 |
| 2 | ... | ... | ... | ... | 1 | 5 | ... | 5 | ... | ... | ·01 | ... | ·01 | ·30 | 22 |
| 5 | ... | ... | ... | ... | ... | 8 | 13 | 21 | 4 | 11 | ·03 | ·05 | ·04 | ·20 | 23 |
| ... | ... | ... | ... | ... | ... | 3 | 1 | 4 | ... | 2 | ·01 | ·01 | ·01 | ·22 | 24 |
| 9 | ... | ... | ... | 7 | 9 | 37 | 45 | 82 | 23 | 41 | ·15 | ·25 | ·20 | ·20 | 25 |
| 5 | 2 | 2 | 1 | 12 | ... | 24 | 31 | 55 | 8 | 22 | ·07 | ·12 | ·09 | ·21 | 26 |
| ... | ... | 1 | 1 | 4 | 6 | 7 | 5 | 12 | ... | 2 | ·03 | ·02 | ·03 | ·19 | 27 |
| ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ·07 | 28 |
| 353 | 214 | 148 | 106 | 181 | 285 | 2,592 | 2,673 | 5,265 | 1,495 | 2,531 | ·26 | ·29 | ·27 | ·30 | |

ANNUAL FORM No. IX.—DEATHS *registered from* FEVERS *in the*

| 1 | 2 | 3 | | 4 | | 5 | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | CIRCLES OF REGISTRATION. | | VILLAGES. | | | | | | | |
| No. | Districts. | Number in each District. | Number from which deaths from fevers were reported. | Number in each District. | Number from which deaths from fevers were reported. | January. | February. | March. | April. | May. | June. |
| | *Western Registration District.* | | | | | | | | | | |
| 1 | East Khándesh ... | 23 | 23 | 1,478 | 1,375 | 759 | 723 | 1,291 | 1,888 | 1,023 | 1,326 |
| 2 | West Khándesh ... | 10 | 10 | 1,242 | 1,103 | 458 | 593 | 960 | 793 | 603 | 468 |
| 3 | Násik ... ... | 19 | 19 | 1,667 | 1,540 | 734 | 772 | 983 | 1,128 | 1,002 | 825 |
| 4 | Thána ... ... | 19 | 19 | 1,546 | 1,332 | 687 | 787 | 875 | 636 | 535 | 464 |
| 5 | Bombay Suburban. | 5 | 5 | 86 | 66 | 54 | 54 | 47 | 33 | 47 | 39 |
| 6 | Kolába ... ... | 13 | 13 | 1,482 | 1,203 | 543 | 534 | 572 | 372 | 358 | 286 |
| 7 | City of Bombay ... | 1 | 1 | 1 | 1 | 197 | 175 | 197 | 227 | 206 | 133 |
| | *Central Registration District.* | | | | | | | | | | |
| 8 | Ahmednagar ... | 15 | 15 | 1,346 | 1,019 | 285 | 319 | 368 | 565 | 690 | 469 |
| 9 | Poona ... ... | 20 | 20 | 1,157 | 940 | 687 | 607 | 728 | 889 | 1,001 | 908 |
| 10 | Sholápur ... ... | 10 | 10 | 719 | 675 | 519 | 510 | 640 | 723 | 1,158 | 820 |
| 11 | Sátára ... ... | 18 | 18 | 1,341 | 1,225 | 657 | 641 | 835 | 915 | 1,195 | 1,080 |
| 12 | Ratnágiri ... ... | 15 | 15 | 1,305 | 1,205 | 747 | 877 | 964 | 856 | 828 | 610 |
| | *Southern Registration District.* | | | | | | | | | | |
| 13 | Belgaum ... ... | 15 | 15 | 1,069 | 934 | 510 | 476 | 806 | 751 | 770 | 666 |
| 14 | Dhárwár ... ... | 18 | 18 | 1,277 | 1,128 | 998 | 803 | 1,039 | 821 | 780 | 630 |
| 15 | Bijápur ... ... | 13 | 13 | 1,128 | 1,030 | 444 | 480 | 733 | 652 | 948 | 25 |
| 16 | Kánara ... ... | 16 | 16 | 1,264 | 902 | 512 | 442 | 431 | 318 | 311 | 289 |
| | *Gujarát Registration District.* | | | | | | | | | | |
| 17 | Surat ... ... | 12 | 12 | 782 | 662 | 423 | 478 | 493 | 398 | 355 | 412 |
| 18 | Broach ... ... | 9 | 9 | 404 | 394 | 341 | 298 | 372 | 329 | 324 | 309 |
| 19 | Kaira ... ... | 15 | 15 | 579 | 563 | 468 | 458 | 521 | 636 | 647 | 563 |
| 20 | Panch Maháls ... | 7 | 7 | 668 | 598 | 406 | 364 | 334 | 475 | 450 | 367 |
| 21 | Ahmedabad ... | 13 | 13 | 871 | 827 | 1,117 | 1,105 | 1,203 | 1,188 | 1,087 | 740 |
| | *Sind Registration District.* | | | | | | | | | | |
| 22 | Karáchi ... ... | 16 | 16 | 793 | 793 | 524 | 545 | 471 | 247 | 287 | 219 |
| 23 | Hyderabad ... | 11 | 11 | 862 | 862 | 743 | 846 | 757 | 472 | 338 | 312 |
| 24 | Thar and Párkar... | 13 | 13 | 904 | 904 | 699 | 774 | 804 | 470 | 362 | 306 |
| 25 | Nawabshah ... | 9 | 9 | 731 | 731 | 711 | 721 | 717 | 561 | 336 | 306 |
| 26 | Lárkána ... ... | 15 | 15 | 763 | 763 | 1,249 | 984 | 1,376 | 845 | 633 | 584 |
| 27 | Sukkur ... ... | 12 | 12 | 671 | 671 | 591 | 571 | 568 | 492 | 524 | 422 |
| 28 | Upper Sind Frontier | 6 | 6 | 410 | 410 | 314 | 277 | 280 | 239 | 182 | 162 |
| | Total for the Presidency ... | 368 | 368 | 26,546 | 23,908 | 16,382 | 16,214 | 19,361 | 17,924 | 17,825 | 14,547 |

DISTRICTS *of the* BOMBAY PRESIDENCY *during each month of the year 1928*

| July. | August. | September. | October. | November. | December. | 6 TOTAL. Male. | Female. | Total. | 7 RATIO OF DEATHS PER 1,000 OF POPULATION. Male. | Female. | Total. | 8 Mean ratio per 1,000 of previous five years. | 9 No. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1,410 | 1,706 | 1,468 | 1,519 | 1,673 | 1,420 | 8,399 | 8,727 | 17,126 | 15·40 | 16·47 | 15·95 | 13·39 | 1 |
| 486 | 361 | 638 | 689 | 1,052 | 958 | 4,122 | 4,237 | 8,359 | 13·32 | 13·97 | 13·64 | 12·12 | 2 |
| 898 | 929 | 871 | 991 | 1,285 | 1,473 | 5,943 | 5,953 | 11,896 | 11·81 | 14·63 | 14·42 | 11·57 | 3 |
| 452 | 482 | 502 | 564 | 804 | 807 | 3,772 | 3,823 | 7,595 | 9·71 | 10·37 | 10·03 | 12·42 | 4 |
| 33 | 46 | 41 | 49 | 69 | 62 | 293 | 281 | 574 | 3·35 | 4·39 | 3·81 | 7·05 | 5 |
| 369 | 376 | 359 | 352 | 499 | 602 | 2,476 | 2,746 | 5,222 | 8·86 | 9·60 | 9·28 | 12·43 | 6 |
| 119 | 172 | 173 | 199 | 215 | 187 | 1,157 | 1,043 | 2,200 | 1·54 | 2·65 | 1·91 | 2·93 | 7 |
| 582 | 525 | 445 | 499 | 620 | 546 | 3,143 | 2,770 | 5,913 | 8·65 | 7·67 | 8·17 | 6·35 | 8 |
| 1,000 | 942 | 800 | 774 | 980 | 1,054 | 5,449 | 4,921 | 10,370 | 10·88 | 10·20 | 10·50 | 9·96 | 9 |
| 1,061 | 992 | 783 | 751 | 899 | 978 | 5,045 | 4,794 | 9,839 | 13·17 | 13·32 | 13·23 | 12·27 | 10 |
| 1,087 | 1,027 | 931 | 838 | 1,021 | 1,100 | 5,823 | 5,454 | 11,277 | 11·41 | 10·61 | 11·01 | 10·17 | 11 |
| 663 | 694 | 648 | 619 | 722 | 779 | 4,264 | 4,743 | 9,007 | 8·12 | 7·54 | 7·80 | 7·39 | 12 |
| 664 | 608 | 482 | 485 | 675 | 738 | 3,915 | 3,716 | 7,631 | 8·08 | 7·99 | 8·04 | 6·51 | 13 |
| 650 | 640 | 666 | 702 | 1,088 | 1,174 | 5,061 | 4,983 | 10,044 | 9·58 | 9·81 | 9·69 | 10·51 | 14 |
| 828 | 750 | 671 | 639 | 905 | 971 | 4,324 | 4,523 | 8,847 | 10·07 | 11·56 | 11·11 | 10·07 | 15 |
| 293 | 329 | 355 | 355 | 367 | 445 | 2,175 | 2,272 | 4,447 | 10·66 | 11·50 | 11·08 | 11·08 | 16 |
| 477 | 505 | 450 | 509 | 627 | 583 | 2,707 | 3,008 | 5,715 | 8·03 | 8·93 | 8·48 | 8·77 | 17 |
| 374 | 424 | 380 | 573 | 622 | 414 | 2,281 | 2,479 | 4,760 | 14·39 | 16·56 | 15·47 | 14·48 | 18 |
| 611 | 605 | 734 | 857 | 661 | 610 | 3,765 | 3,606 | 7,371 | 9·02 | 10·89 | 10·37 | 7·71 | 19 |
| 378 | 373 | 424 | 590 | 713 | 572 | 2,844 | 2,602 | 5,446 | 14·71 | 14·34 | 14·53 | 12·77 | 20 |
| 782 | 1,040 | 1,188 | 1,294 | 1,260 | 1,246 | 6,692 | 6,508 | 13,200 | 14·13 | 15·71 | 14·87 | 13·71 | 21 |
| 160 | 161 | 216 | 279 | 341 | 497 | 2,246 | 1,701 | 3,947 | 7·42 | 7·43 | 7·43 | 8·38 | 22 |
| 251 | 228 | 273 | 407 | 496 | 574 | 3,253 | 2,439 | 5,692 | 10·26 | 9·73 | 10·03 | 10·76 | 23 |
| 282 | 199 | 159 | 344 | 276 | 299 | 2,795 | 2,189 | 4,974 | 12·59 | 12·49 | 12·55 | 14·82 | 24 |
| 286 | 238 | 327 | 526 | 484 | 508 | 3,238 | 2,485 | 5,721 | 13·84 | 13·44 | 13·67 | 13·56 | 25 |
| 159 | 435 | 590 | 861 | 1,011 | 961 | 5,577 | 4,411 | 9,988 | 16·84 | 16·54 | 16·70 | 13·01 | 26 |
| 432 | 394 | 425 | 626 | 639 | 636 | 3,524 | 2,796 | 6,320 | 12·52 | 12·27 | 12·41 | 14·97 | 27 |
| 185 | 155 | 170 | 301 | 342 | 268 | 1,585 | 1,290 | 2,875 | 11·80 | 12·13 | 11·95 | 11·83 | 28 |
| 15,272 | 15,642 | 15,189 | 17,192 | 20,346 | 20,462 | 1,05,856 | 1,00,500 | 2,06,356 | 10·53 | 11·02 | 10·77 | 10·47 | |

ANNUAL FORM No. X.—DEATHS *registered from* DYSENTERY *during each month*

| 1 | 2 | 3 | | 4 | | 5 | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | CIRCLES OF REGISTRATION. | | VILLAGES. | | | | | | | |
| No. | Districts. | Number in each District. | Number from which deaths from Dysentery and Diarrhœa were reported. | Number in each District. | Number from which deaths from Dysentery and Diarrhœa were reported. | January. | February. | March. | April. | May. | June. |
| | *Western Registration District.* | | | | | | | | | | |
| 1 | East Khándesh ... | 23 | 23 | 1,478 | 425 | 63 | 46 | 89 | 94 | 117 | 126 |
| 2 | West Khándesh ... | 10 | 10 | 1,242 | 227 | 27 | 22 | 32 | 38 | 43 | 41 |
| 3 | Násik ... ... ... | 19 | 19 | 1,667 | 551 | 72 | 67 | 73 | 89 | 95 | 92 |
| 4 | Thána ... ... ... | 19 | 19 | 1,546 | 333 | 60 | 49 | 37 | 45 | 35 | 31 |
| 5 | Bombay Suburban ... | 5 | 5 | 86 | 66 | 34 | 18 | 19 | 16 | 19 | 10 |
| 6 | Kolába... ... ... | 13 | 13 | 1,482 | 955 | 70 | 74 | 65 | 61 | 62 | 50 |
| 7 | City of Bombay ... | 1 | 1 | 1 | 1 | 105 | 99 | 113 | 88 | 94 | 80 |
| | *Central Registration District.* | | | | | | | | | | |
| 8 | Ahmednagar ... ... | 15 | 15 | 1,346 | 501 | 107 | 78 | 63 | 52 | 97 | 107 |
| 9 | Poona ... ... ... | 20 | 20 | 1,157 | 475 | 100 | 92 | 63 | 102 | 93 | 115 |
| 10 | Sholápur ... ... | 10 | 10 | 719 | 383 | 106 | 67 | 56 | 55 | 71 | 87 |
| 11 | Sátára ... ... | 18 | 18 | 1,341 | 522 | 73 | 60 | 49 | 80 | 107 | 143 |
| 12 | Ratnágiri ... ... | 15 | 15 | 1,305 | 422 | 92 | 81 | 66 | 66 | 57 | 53 |
| | *Southern Registration District.* | | | | | | | | | | |
| 13 | Belgaum ... ... | 15 | 15 | 1,069 | 594 | 106 | 94 | 125 | 128 | 202 | 233 |
| 14 | Dhárwár ... ... | 18 | 18 | 1,277 | 280 | 60 | 52 | 71 | 55 | 71 | 78 |
| 15 | Bijápur ... ... | 13 | 13 | 1,128 | 363 | 35 | 37 | 43 | 49 | 58 | 92 |
| 16 | Kánara ... ... | 16 | 16 | 1,264 | 294 | 83 | 84 | 79 | 60 | 38 | 70 |
| | *Gujarát Registration District.* | | | | | | | | | | |
| 17 | Surat ... ... ... | 12 | 11 | 782 | 153 | 45 | 28 | 32 | 54 | 66 | 100 |
| 18 | Broach... ... ... | 9 | 9 | 404 | 111 | 10 | 10 | 13 | 21 | 23 | 36 |
| 19 | Kaira ... ... ... | 15 | 15 | 579 | 212 | 40 | 28 | 51 | 42 | 61 | 69 |
| 20 | Panch Mahás ... | 7 | 7 | 668 | 58 | 9 | 7 | 2 | 5 | 8 | 2 |
| 21 | Ahmedabad ... | 13 | 13 | 871 | 134 | 43 | 33 | 57 | 36 | 32 | 37 |
| | *Sind Registration District.* | | | | | | | | | | |
| 22 | Karáchi ... ... | 16 | 13 | 793 | 15 | 24 | 15 | 7 | 13 | 26 | 20 |
| 23 | Hyderabad ... ... | 11 | 6 | 862 | 7 | 8 | 3 | 6 | 8 | 8 | 5 |
| 24 | Thar and Párkar ... | 13 | 10 | 904 | 10 | 5 | 5 | ... | ... | 1 | 3 |
| 25 | Nawabshah ... ... | 9 | 5 | 731 | 5 | ... | 1 | ... | ... | 1 | ... |
| 26 | Lárkána ... ... | 15 | 11 | 763 | 11 | 6 | 5 | 3 | 1 | 1 | ... |
| 27 | Sukkur... ... ... | 12 | 10 | 671 | 12 | 9 | 3 | 3 | 7 | 7 | 6 |
| 28 | Upper Sind Frontier . | 6 | 2 | 410 | 5 | ... | ... | ... | 1 | ... | ... |
| | Total for the Presidency ... | 363 | 342 | 26,546 | 7,130 | 1,392 | 1,163 | 1,208 | 1,266 | 1,493 | 1,686 |

*and* DIARRHŒA *in the* DISTRICTS *of the* BOMBAY PRESIDENCY *of the year 1928*

| | | | | | | | | | 7 | | | 8 | 9 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | TOTAL. | | | RATIO OF DEATHS PER 1,000 OF POPULATION. | | | Mean ratio per 1,000 of previous five years. | No. |
| July. | August. | September. | October. | November. | December. | Male. | Female. | Total. | Male. | Female. | Total. | | |
| 250 | 385 | 213 | 130 | 105 | 86 | 850 | 845 | 1,695 | 1·56 | 1·60 | 1·57 | 1·74 | 1 |
| 58 | 114 | 87 | 65 | 44 | 38 | 306 | 303 | 609 | ·99 | ·99 | ·99 | ·77 | 2 |
| 172 | 186 | 157 | 137 | 105 | 78 | 692 | 631 | 1,323 | 1·65 | 1·51 | 1·61 | 1·50 | 3 |
| 74 | 147 | 94 | 65 | 56 | 56 | 411 | 338 | 749 | 1·06 | ·92 | ·99 | ·52 | 4 |
| 21 | 39 | 30 | 30 | 36 | 29 | 168 | 133 | 301 | 1·92 | 2·08 | 1·98 | 1·49 | 5 |
| 118 | 172 | 129 | 88 | 53 | 97 | 552 | 482 | 1,034 | 1·98 | 1·70 | 1·84 | 1·92 | 6 |
| 115 | 125 | 99 | 78 | 75 | 83 | 675 | 479 | 1,154 | ·90 | 1·22 | 1·00 | 2·26 | 7 |
| 204 | 280 | 137 | 133 | 129 | 100 | 800 | 637 | 1,437 | 2·20 | 1·76 | 1·99 | 2·91 | 8 |
| 256 | 252 | 172 | 161 | 144 | 113 | 869 | 794 | 1,663 | 1·74 | 1·63 | 1·68 | 1·97 | 9 |
| 261 | 308 | 199 | 169 | 135 | 115 | 900 | 727 | 1,627 | 2·35 | 2·02 | 2·19 | 2·51 | 10 |
| 325 | 357 | 215 | 185 | 157 | 129 | 931 | 949 | 1,880 | 1·82 | 1·85 | 1·84 | 2·05 | 11 |
| 84 | 151 | 109 | 112 | 106 | 146 | 589 | 534 | 1,123 | 1·12 | ·85 | ·97 | ·92 | 12 |
| 350 | 354 | 248 | 197 | 167 | 149 | 1,185 | 1,168 | 2,353 | 2·44 | 2·51 | 2·48 | 2·80 | 13 |
| 132 | 94 | 82 | 88 | 81 | 82 | 474 | 472 | 946 | ·90 | ·93 | ·91 | ·96 | 14 |
| 167 | 181 | 128 | 127 | 108 | 109 | 539 | 595 | 1,134 | 1·33 | 1·52 | 1·42 | 1·74 | 15 |
| 77 | 94 | 90 | 91 | 92 | 78 | 525 | 411 | 936 | 2·57 | 2·08 | 2·33 | 2·58 | 16 |
| 141 | 102 | 69 | 48 | 34 | 46 | 400 | 365 | 765 | 1·19 | 1·08 | 1·13 | 1·01 | 17 |
| 41 | 28 | 23 | 10 | 15 | 30 | 142 | 118 | 260 | ·90 | ·79 | ·84 | ·77 | 18 |
| 136 | 142 | 145 | 73 | 65 | 35 | 451 | 436 | 887 | 1·19 | 1·32 | 1·25 | 1·18 | 19 |
| 9 | 27 | 22 | 13 | 7 | 4 | 60 | 55 | 115 | ·31 | ·30 | ·31 | ·60 | 20 |
| 50 | 137 | 136 | 94 | 56 | 47 | 426 | 332 | 758 | ·90 | ·80 | ·85 | ·93 | 21 |
| 31 | 51 | 41 | 33 | 38 | 53 | 219 | 133 | 352 | ·72 | ·58 | ·66 | ·61 | 22 |
| 10 | 16 | 12 | 16 | 13 | 7 | 69 | 48 | 117 | ·22 | ·19 | ·21 | ·20 | 23 |
| ... | 2 | 3 | 2 | ... | 2 | 17 | 6 | 23 | ·07 | ·03 | ·05 | ·11 | 24 |
| 1 | ... | 1 | 1 | ... | 1 | 5 | 1 | 6 | ·02 | ·00 | ·01 | ·03 | 25 |
| 1 | 3 | 11 | 5 | 4 | 1 | 24 | 17 | 41 | ·07 | ·06 | ·07 | ·23 | 26 |
| 1 | 7 | 6 | 11 | 6 | 9 | 51 | 24 | 75 | ·18 | ·11 | ·15 | ·07 | 27 |
| 1 | ... | ... | 4 | 2 | ... | 4 | 4 | 8 | ·03 | ·03 | ·03 | ·14 | 28 |
| 3,089 | 3,699 | 2,658 | 2,161 | 1,833 | 1,723 | 12,334 | 11,037 | 23,371 | 1·22 | 1·21 | 1·22 | 1·37 | |

ANNUAL FORM No. XI.—DEATHS *registered from* RESPIRATORY *month of the*

| 1 | 2 | 3 | | 4 | | 5 | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | CIRCLES OF REGISTRATION. | | VILLAGES. | | | | | | | |
| No. | Districts. | Number in each District. | Number from which deaths Respiratory Diseases were reported. | Number in each District. | Number from which deaths Respiratory Diseases were reported. | January. | February. | March. | April. | May. | June. |
| | *Western Registration District.* | | | | | | | | | | |
| 1 | East Khándesh ... | 23 | 23 | 1,478 | 372 | 310 | 314 | 460 | 459 | 331 | 270 |
| 2 | West Khándesh ... | 10 | 10 | 1,242 | 701 | 240 | 264 | 329 | 234 | 192 | 170 |
| 3 | Násik ... | 19 | 19 | 1,667 | 1,107 | 375 | 364 | 421 | 433 | 414 | 299 |
| 4 | Thána ... | 19 | 19 | 1,546 | 991 | 301 | 353 | 458 | 306 | 283 | 231 |
| 5 | Bombay Suburban ... | 5 | 4 | 86 | 45 | 57 | 65 | 59 | 64 | 53 | 51 |
| 6 | Kolába ... | 13 | 13 | 1,482 | 432 | 298 | 283 | 292 | 220 | 228 | 184 |
| 7 | City of Bombay ... | 1 | 1 | 1 | 1 | 933 | 1,036 | 1,100 | 1,232 | 1,124 | 872 |
| | *Central Registration District.* | | | | | | | | | | |
| 8 | Ahmednagar ... | 15 | 15 | 1,340 | 957 | 330 | 307 | 291 | 377 | 417 | 364 |
| 9 | Poona ... | 20 | 20 | 1,157 | 778 | 521 | 465 | 503 | 472 | 529 | 471 |
| 10 | Sholápur ... | 10 | 10 | 719 | 481 | 205 | 195 | 197 | 227 | 278 | 236 |
| 11 | Sátára ... | 18 | 18 | 1,341 | 563 | 196 | 197 | 190 | 178 | 216 | 203 |
| 12 | Ratnágiri ... | 15 | 15 | 1,305 | 1,037 | 413 | 444 | 403 | 317 | 341 | 302 |
| | *Southern Registration District.* | | | | | | | | | | |
| 13 | Belgaum ... | 15 | 15 | 1,069 | 735 | 291 | 282 | 422 | 305 | 291 | 285 |
| 14 | Dhárwár ... | 18 | 18 | 1,277 | 699 | 310 | 288 | 338 | 250 | 270 | 234 |
| 15 | Bijápur ... | 13 | 13 | 1,128 | 640 | 187 | 173 | 231 | 191 | 228 | 221 |
| 16 | Kánara ... | 16 | 16 | 1,264 | 416 | 150 | 137 | 144 | 90 | 70 | 81 |
| | *Gujarát Registration District.* | | | | | | | | | | |
| 17 | Surat ... | 12 | 12 | 782 | 686 | 664 | 736 | 725 | 565 | 550 | 529 |
| 18 | Broach ... | 9 | 9 | 404 | 331 | 216 | 243 | 243 | 247 | 232 | 233 |
| 19 | Kaira ... | 15 | 15 | 579 | 548 | 479 | 509 | 547 | 610 | 656 | 555 |
| 20 | Panch Mahála ... | 7 | 7 | 668 | 336 | 157 | 147 | 125 | 138 | 100 | 75 |
| 21 | Ahmedabad ... | 13 | 13 | 871 | 530 | 674 | 660 | 780 | 679 | 605 | 454 |
| | *Sind Registration District.* | | | | | | | | | | |
| 22 | Karáchi ... | 16 | 15 | 793 | 138 | 345 | 493 | 352 | 231 | 201 | 187 |
| 23 | Hyderabad ... | 11 | 11 | 862 | 99 | 238 | 319 | 242 | 117 | 67 | 34 |
| 24 | Thar and Párkar ... | 13 | 13 | 904 | 321 | 206 | 321 | 346 | 94 | 30 | 41 |
| 25 | Nawábshah ... | 9 | 9 | 731 | 117 | 104 | 122 | 173 | 42 | 34 | 14 |
| 26 | Lárkána ... | 15 | 14 | 763 | 37 | 35 | 55 | 112 | 24 | 15 | 10 |
| 27 | Sukkur ... | 12 | 11 | 671 | 12 | 31 | 39 | 42 | 30 | 28 | 17 |
| 28 | Upper Sind Frontier. | 6 | 6 | 410 | 15 | 24 | 3 | 11 | ... | ... | 1 |
| | Total for the Presidency. | 368 | 364 | 26,546 | 13,124 | 8,290 | 8,818 | 9,516 | 8,132 | 7,783 | 6,691 |

DISEASES *in the* DISTRICTS *of the* BOMBAY PRESIDENCY *during each year 1928.*

| | | | | | | 6 | | | 7 | | | 8 | 9 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | TOTAL. | | | RATIO OF DEATHS PER 1,000 OF POPULATION. | | | | |
| July. | August. | September. | October. | November. | December. | Male. | Female. | Total. | Male. | Female. | Total. | Mean ratio per 1,000 of previous five years. | No. |
| 368 | 430 | 434 | 441 | 459 | 446 | 2,567 | 2,164 | 4,731 | 4·71 | 4·08 | 4·40 | 3·75 | 1 |
| 103 | 206 | 183 | 220 | 216 | 284 | 1,545 | 1,156 | 2,701 | 4·09 | 3·81 | 4·41 | 3·29 | 2 |
| 386 | 471 | 461 | 558 | 542 | 587 | 2,740 | 2,571 | 5,311 | 6·55 | 6·32 | 6·44 | 4·46 | 3 |
| 249 | 284 | 391 | 332 | 374 | 360 | 2,192 | 1,730 | 3,922 | 5·65 | 4·69 | 5·18 | 2·64 | 4 |
| 60 | 77 | 74 | 82 | 85 | 76 | 448 | 355 | 803 | 5·11 | 5·55 | 5·30 | 3·01 | 5 |
| 186 | 258 | 278 | 270 | 290 | 345 | 1,731 | 1,401 | 3,132 | 6·19 | 4·95 | 5·57 | 3·62 | 6 |
| 900 | 891 | 898 | 981 | 1,017 | 994 | 6,690 | 5,286 | 11,978 | 8·90 | 13·42 | 10·43 | 12·01 | 7 |
| 422 | 442 | 387 | 473 | 580 | 497 | 2,455 | 2,452 | 4,907 | 6·73 | 6·79 | 6·77 | 5·40 | 8 |
| 525 | 524 | 526 | 604 | 587 | 649 | 3,162 | 3,214 | 6,376 | 6·32 | 6·60 | 6·46 | 5·97 | 9 |
| 307 | 284 | 215 | 204 | 271 | 290 | 1,415 | 1,554 | 2,969 | 3·69 | 4·32 | 3·99 | 3·26 | 10 |
| 219 | 248 | 231 | 280 | 247 | 265 | 1,337 | 1,336 | 2,673 | 2·62 | 2·60 | 2·61 | 2·23 | 11 |
| 365 | 380 | 493 | 507 | 360 | 389 | 2,515 | 2,199 | 4,714 | 4·79 | 3·50 | 4·09 | 4·45 | 12 |
| 304 | 329 | 334 | 304 | 324 | 331 | 2,025 | 1,757 | 3,782 | 4·18 | 3·78 | 3·98 | 3·45 | 13 |
| 277 | 288 | 281 | 297 | 313 | 341 | 1,772 | 1,710 | 3,482 | 3·35 | 3·37 | 3·35 | 3·41 | 14 |
| 226 | 195 | 203 | 186 | 233 | 275 | 1,411 | 1,133 | 2,549 | 3·48 | 2·99 | 3·20 | 3·18 | 15 |
| 79 | 82 | 90 | 98 | 84 | 110 | 736 | 479 | 1,215 | 3·61 | 2·43 | 3·03 | 2·29 | 16 |
| 505 | 521 | 488 | 476 | 572 | 731 | 3,760 | 3,302 | 7,062 | 11·50 | 9·80 | 10·48 | 10·54 | 17 |
| 171 | 188 | 204 | 228 | 246 | 306 | 1,491 | 1,266 | 2,757 | 9·40 | 8·49 | 8·96 | 9·40 | 18 |
| 623 | 668 | 664 | 792 | 633 | 621 | 4,070 | 3,337 | 7,407 | 10·72 | 10·07 | 10·42 | 9·57 | 19 |
| 73 | 79 | 81 | 86 | 95 | 81 | 798 | 439 | 1,237 | 4·13 | 2·42 | 3·30 | 3·11 | 20 |
| 424 | 563 | 522 | 567 | 537 | 588 | 4,089 | 2,973 | 7,062 | 8·68 | 7·18 | 7·95 | 8·31 | 21 |
| 126 | 172 | 134 | 155 | 204 | 370 | 1,713 | 1,257 | 2,970 | 5·66 | 5·51 | 5·59 | 4·38 | 22 |
| 38 | 32 | 45 | 50 | 70 | 121 | 8 4 | 529 | 1,353 | 2·60 | 2·11 | 2·39 | 2·57 | 23 |
| 6 | 11 | 17 | 15 | 14 | 25 | 675 | 421 | 1,096 | 3·45 | 2·40 | 2·77 | 2 56 | 24 |
| 10 | 12 | 7 | 12 | 15 | 16 | 360 | 2 8 | 558 | 1·49 | 1·13 | 1·33 | ·89 | 25 |
| 14 | 10 | 12 | 14 | 12 | 23 | 202 | 134 | 336 | ·61 | ·50 | ·56 | ·15 | 26 |
| 12 | 10 | 15 | 9 | 17 | 45 | 216 | 79 | 295 | ·76 | ·34 | ·58 | ·30 | 27 |
| ... | 1 | 2 | 2 | 2 | 4 | 33 | 17 | 50 | ·25 | ·16 | ·21 | ·09 | 28 |
| 7,033 | 7,665 | 7,670 | 8,303 | 8,449 | 9,173 | 52,962 | 44,466 | 97,428 | 5·27 | 4·86 | 5·08 | 4·69 | |

ANNUAL FORM No. XII.—DEATHS *registered from* PLAGUE *in the*

| 1 | 2 | 3 | | 4 | | 5 | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | CIRCLES OF REGISTRATION. | | VILLAGES. | | | | | | | |
| No. | Districts. | Number in each District. | Number from which deaths from Plague were reported. | Number in each District. | Number from which deaths from Plague were reported. | January. | February. | March. | April | May. | June. |
| | *Western Registration District.* | | | | | | | | | | |
| | East Khándesh ... | 23 | ... | 1,478 | ... | ... | ... | ... | ... | ... | ... |
| 2 | West Khándesh ... | 10 | 1 | 1,242 | 1 | ... | ... | ... | ... | ... | ... |
| 3 | Násik ... | 19 | 15 | 1,667 | 47 | 3 | ... | 2 | ... | ... | ... |
| 4 | Thána ... | 19 | 3 | 1,546 | 16 | 5 | 11 | 35 | 14 | 10 | 3 |
| 5 | Bombay Suburban ... | 5 | 3 | 86 | 6 | 1 | ... | 5 | 3 | 2 | 2 |
| 6 | Kolába ... | 13 | 3 | 1,482 | 20 | 21 | 35 | 61 | 7 | 1 | ... |
| 7 | City of Bombay ... | 1 | 1 | 1 | 1 | 9 | 29 | 50 | 79 | 50 | 12 |
| | *Central Registration District.* | | | | | | | | | | |
| 8 | Ahmednagar ... | 15 | 2 | 1,346 | 4 | ... | ... | ... | .. | ... | ... |
| 9 | Poona ... | 20 | 4 | 1,157 | 4 | ... | 1 | ... | ... | ... | ... |
| 10 | Sholápur ... | 10 | 6 | 719 | 9 | 7 | ... | ... | .. | ... | ... |
| 11 | Sátára ... | 18 | 17 | 1,341 | 339 | 139 | 126 | 79 | 34 | 13 | 7 |
| 12 | Ratnágiri ... | 15 | 2 | 1,305 | 2 | 18 | 5 | ... | 9 | ... | .. |
| | *Southern Registration District.* | | | | | | | | | | |
| 13 | Belgaum ... | 15 | 7 | 1,069 | 55 | 98 | 111 | 84 | 28 | 19 | 10 |
| 14 | Dhárwár ... | 18 | 18 | 1,277 | 127 | 157 | 141 | 54 | 9 | 11 | 12 |
| 15 | Bijápur ... | 13 | 5 | 1,128 | 8 | 12 | 8 | 2 | ... | ... | ... |
| 16 | Kánara ... | 16 | 9 | 1,264 | 21 | 36 | 38 | 39 | 6 | ... | ... |
| | *Gujarát Registration District.* | | | | | | | | | | |
| 17 | Surat ... | 12 | 5 | 762 | 52 | 90 | 181 | 165 | 37 | 11 | 5 |
| 18 | Broach ... | 9 | ... | 404 | ... | ... | ... | ... | ... | ... | ... |
| 19 | Kaira ... | 15 | ... | 579 | ... | .. | ... | ... | ... | ... | ... |
| 20 | Panch Maháls ... | 7 | ... | 668 | .. | ... | ... | ... | ... | ... | ... |
| 21 | Ahmedabad ... | 13 | ... | 871 | ... | ... | ... | ... | ... | ... | ... |
| | *Sind Registration District.* | | | | | | | | | | |
| 22 | Karáchi ... | 16 | ... | 793 | ... | ... | ... | ... | ... | ... | ... |
| 23 | Hyderabad ... | 11 | ... | 832 | ... | ... | ... | ... | ... | ... | ... |
| 24 | Thar and Párkar ... | 13 | ... | 904 | ... | ... | ... | ... | ... | ... | ... |
| 25 | Nawábshah ... | 9 | ... | 731 | ... | ... | ... | ... | ... | ... | ... |
| 26 | Lárkána ... | 15 | ... | 763 | ... | ... | ... | ... | ... | ... | ... |
| 27 | Sukkur ... | 12 | ... | 671 | ... | ... | ... | ... | ... | ... | ... |
| 28 | Upper Sind Frontier. | 6 | ... | 410 | ... | ... | ... | ... | ... | ... | ... |
| | Total for the Presidency ... | 368 | 101 | 26,546 | 712 | 596 | 688 | 576 | 226 | 117 | 51 |

DISTRICTS *of the* BOMBAY PRESIDENCY *during each month of the year 1928.*

| July. | August. | September. | October. | November. | December. | 6 Total. Male. | 6 Total. Female. | 6 Total. Total. | 7 Ratio of Deaths per 1,000 of Population. Male. | 7 Ratio of Deaths per 1,000 of Population. Female. | 7 Ratio of Deaths per 1,000 of Population. Total. | 8 Mean ratio per 1,000 of previous five years. | 9 No. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ... | ... | ... | ... | ... | .. | ... | ... | ... | ... | ... | ... | 1·66 | 1 |
| ... | ... | ... | ... | ... | 1 | ... | 1 | 1 | ... | ·00 | ·00 | ·03 | 2 |
| 9 | 57 | 149 | 201 | 173 | 194 | 387 | 401 | 788 | ·93 | ·98 | ·95 | ·00 | 3 |
| 6 | 17 | 8 | 3 | 4 | 8 | 79 | 45 | 124 | ·20 | ·12 | ·16 | ·24 | 4 |
| .... | 6 | 4 | 1 | ... | ... | 20 | 4 | 24 | ·23 | ·06 | ·15 | ·29 | 5 |
| ... | ... | . | .. | ... | 5 | 74 | 56 | 130 | ·27 | ·20 | ·23 | ·15 | 6 |
| 2 | 5 | 8 | 7 | 5 | 1 | 195 | 62 | 257 | ·26 | ·16 | ·22 | ·38 | 7 |
| ... | 1 | 3 | 1 | ... | ... | 5 | ... | 5 | ·01 | ... | ·01 | ·14 | 8 |
| ... | ... | 2 | 5 | 9 | 3 | 11 | 9 | 20 | ·03 | ·02 | ·02 | ·47 | 9 |
| ... | ... | 4 | 1 | 12 | 33 | 25 | 32 | 57 | ·07 | ·09 | ·08 | 1·24 | 10 |
| 51 | 327 | 787 | 2,490 | 2,680 | 1,506 | 3,721 | 4,518 | 8,239 | 7·29 | 8·79 | 8·04 | 3·12 | 11 |
| 1 | 3 | ... | 1 | 2 | 3 | 23 | 19 | 42 | ·04 | ·03 | ·04 | ·21 | 12 |
| 12 | 30 | 40 | 48 | 61 | 59 | 255 | 345 | 600 | ·52 | ·74 | ·63 | 1·84 | 13 |
| 29 | 80 | 318 | 627 | 628 | 426 | 1,110 | 1,382 | 2,492 | 2·10 | 2·72 | 2·40 | 3·48 | 14 |
| ... | ... | 2 | 3 | 3 | 1 | 16 | 15 | 31 | ·04 | ·04 | ·04 | ·06 | 15 |
| 4 | 20 | 4 | 7 | 6 | 5 | 91 | 74 | 165 | ·45 | ·37 | ·41 | ·42 | 16 |
| 4 | 25 | 22 | 10 | 15 | 23 | 261 | 327 | 588 | ·77 | ·97 | ·87 | ·02 | 17 |
| ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ·00 | 18 |
| ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ·00 | 19 |
| ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | 20 |
| ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ·00 | 21 |
| ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ·25 | 22 |
| ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ·00 | 23 |
| ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | 24 |
| ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ·00 | 25 |
| ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ·00 | 26 |
| ... | ... | .. | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | 27 |
| ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ·04 | 28 |
| ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | | |
| 118 | 571 | 1,351 | 3,405 | 3,598 | 2,268 | 6,273 | 7,290 | 13,563 | ·62 | ·80 | ·71 | ·72 | |

# APPENDIX

## STATEMENT

*Showing the Particulars of Vaccination in the*

| N. | Circles and Districts. | Population of District according to census of 1921. | Average population per square mile. | Average number of Vaccinators employed throughout the year. |
|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 |
| | WESTERN REGISTRATION DISTRICT. | | | |
| | EAST KHANDESH COLLECTORATE— | | | |
| 1 | Chopda Town (Municipal) ... ... | 16,930 | 11,333 | 1 |
| 2 | Nasirabad do. (Local Fund)... ... | 12,183 | ..... | ..... |
| 3 | Jalgaon do. (Municipal) ... ... | 23,710 | 66 | 1 |
| 4 | In the 13 Rural circles. { Local Fund ... / Municipal ... } | 1,023,009 | 224 | 18 |
| | Total ... | 1,075,837 | 236 | 20 |
| | WEST KHANDESH COLLECTORATE— | | | |
| 5 | Dhulia Town (Municipal) ... ... | 30,605 | 52 | 1 |
| 6 | Nandurbar do. ( do. ) ... ... | 13,842 | ..... | 1 |
| 7 | In the 8 Rural circles. { Local Fund ... / Municipal ... } | 597,400 | 109 | 18 |
| 8 | Dhulia Jail ... ... ... | ..... | ..... | S. M. S. |
| | Total ... | 641,847 | 118 | { 15 / S. M. S. 1 } |
| | NASIK COLLECTORATE— | | | |
| 9 | Nasik Town (Municipal) ... ... | 42,756 | ..... | 1 |
| 10 | Yeola do. ( do. ) ... ... | 13,911 | 8,137 | 1 |
| 11 | Malegaon do. ( do. ) ... ... | 23,711 | 930 | 1 |
| 12 | Deolali Cantonment ... ... | 18,789 | 24 | ..... |
| 13 | In the 12 Rural circles, Local Fund ... | 733,409 | 124 | 17 |
| | Total ... | 832,576 | 142 | 20 |
| | THANA COLLECTORATE— | | | |
| 14 | Thana Town (Municipal) ... ... | 22,639 | 2,227 | 1 |
| 15 | Kalyan do. ( do. ) ... ... | 17,829 | 12,600 | 1 |
| 16 | In the 9 Rural circles, Local Fund ... | 719,448 | 205 | 17 |
| | Total ... | 759,916 | 221 | 19 |

IV

No. I

*Bombay Presidency during the year 1928-29*

| Total number of persons vaccinated. | | | Average number of persons vaccinated by each Vaccinator. | Primary Vaccination. | | | | |
|---|---|---|---|---|---|---|---|---|
| | | | | Total. | Successful. | | | Unknown. |
| | | | | | Under one year. | One and under six years. | Total of all ages. | |
| Males. | Females. | Total. | | | | | | |
| 6 | | | 7 | 8 | 9 | 10 | 11 | 12 |
| P. 227 | 232 | 459 | 462 | 459 | 282 | 118 | 401 | 58 |
| R. ..... | 3 | 3 | | | | | | |
| P. 185 | 183 | 368 | 368 | 368 | 215 | 71 | 286 | 82 |
| R. ..... | ..... | ... | | | | | | |
| P. 306 | 263 | 569 | 570 | 569 | 331 | 87 | 419 | 149 |
| R. 1 | ..... | 1 | | | | | | |
| P. 16,515 | 15,908 | 32,423 | 2,065 | 32,423 | 20,794 | 4,007 | 25,014 | 7,271 |
| R. 901 | 289 | 1,190 | | | | | | |
| P. 1,768 | 1,720 | 3,488 | | 3,488 | 2,114 | 613 | 2,733 | 743 |
| R. 50 | 9 | 59 | | | | | | |
| P. 19,001 | 18,306 | 37,307 | 1,928 | 37,307 | 23,736 | 4,896 | 28,853 | 8,303 |
| R. 952 | 301 | 1,253 | | | | | | |
| P. 649 | 663 | 1,312 | 1,340 | 1,312 | 945 | 159 | 1,109 | 201 |
| R. 18 | 10 | 28 | | | | | | |
| P. 159 | 183 | 342 | 342 | 342 | 220 | 110 | 330 | 12 |
| R ..... | ..... | ... | | | | | | |
| P. 10,692 | 10,622 | 21,314 | 1,763 | 21,314 | 13,679 | 2,266 | 16,005 | 5,305 |
| R. 323 | 73 | 396 | | | | | | |
| P. 618 | 577 | 1,195 | | 1,195 | 837 | 301 | 1,141 | 54 |
| R. 3 | 5 | 8 | | | | | | |
| P. 3 | 1 | 4 | 943 | 4 | 1 | 3 | 4 | ... |
| R. 888 | 51 | 939 | | | | | | |
| P. 121,211 | 12,046 | 24,167 | 1,419 | 24,167 | 15,682 | 2,839 | 18,589 | 5,572 |
| R. 1,232 | 139 | 1,371 | | | | | | |
| P. 886 | 772 | 1,658 | 2,152 | 1,658 | 1,135 | 270 | 1,429 | 225 |
| R. 349 | 145 | 494 | | | | | | |
| P. 250 | 297 | 547 | 549 | 547 | 425 | 69 | 497 | 49 |
| R. 2 | ..... | 2 | | | | | | |
| P. 340 | 292 | 632 | 646 | 632 | 435 | 35 | 471 | 132 |
| R. 14 | ..... | 14 | | | | | | |
| P. 121 | 91 | 212 | 252 | 212 | 46 | 77 | 123 | 89 |
| R. 23 | 18 | 40 | | | | | | |
| P. 13,450 | 13,361 | 26,811 | 1,641 | 26,812 | 16,915 | 3,233 | 20,250 | 6,531 |
| R. 861 | 231 | 1,092 | | | | | | |
| P. 15,047 | 14,813 | 29,860 | 1,575 | 29,861 | 18,956 | 3,684 | 22,770 | 7,026 |
| R. 1,248 | 394 | 1,642 | | | | | | |
| P. 372 | 388 | 760 | 1,522 | 760 | 525 | 183 | 713 | 44 |
| R. 687 | 75 | 762 | | | | | | |
| P. 198 | 174 | 372 | 398 | 372 | 197 | 128 | 334 | 34 |
| R 13 | 13 | 26 | | | | | | |
| P. 11,391 | 11,073 | 22,464 | 1,350 | 22,464 | 14,159 | 5,577 | 19,881 | 2,563 |
| R. 386 | 98 | 484 | | | | | | |
| P. 11,961 | 11,635 | 23,596 | 1,309 | 23,596 | 14,881 | 5,888 | 20,928 | 2,641 |
| R. 1,086 | 186 | 1,272 | | | | | | |

STATEMENT

| No. | Circles and Districts. | Re-vaccination. | | | Percentage of Successful cases in which the results were known. | |
|---|---|---|---|---|---|---|
| | | Total. | Successful. | Unknown. | Primary. | Re-vaccination. |
| 1 | 2 | 13 | 14 | 15 | 16 | 17 |
| | WESTERN REGISTRATION DISTRICT. | | | | | |
| | EAST KHANDESH COLLECTORATE— | | | | | |
| 1 | Chopda Town (Municipal) ... ... | 3 | ... | 2 | 100·00 | ... |
| 2 | Nasirabad do. (Local Fund) ... ... | ... | ... | ... | 100·00 | ... |
| 3 | Jalgaon do. (Municipal) ... ... | 1 | ... | 1 | 99·76 | ... |
| 4 | In the 13 Rural circles. Local Fund ... | 1,190 | 355 | 558 | 99·45 | 56·17 |
| | In the 13 Rural circles. Municipal ... | 59 | 23 | 35 | 99·56 | 95·83 |
| | Total ... | 1,253 | 378 | 596 | 99·48 | 57·56 |
| | WEST KHANDESH COLLECTORATE— | | | | | |
| 5 | Dhulia Town (Municipal) ... ... | 28 | 8 | 15 | 99·82 | 61·54 |
| 6 | Nandurbar do. ( do. ) ... ... | ... | ... | ... | 100·00 | ... |
| 7 | In the 8 Rural circles. Local Fund ... | 396 | 129 | 180 | 99·97 | 59·73 |
| | In the 8 Rural circles. Municipal ... | 8 | 3 | 2 | 100·00 | 50·00 |
| 8 | Dhulia Jail ... ... ... | 939 | 939 | ... | 100·00 | 100·00 |
| | Total ... | 1,371 | 1,079 | 197 | 99·97 | 91·91 |
| | NASIK COLLECTORATE— | | | | | |
| 9 | Nasik Town (Municipal) ... ... | 494 | 121 | 127 | 99·73 | 32·97 |
| 10 | Yeola do. ( do. ) ... ... | 2 | 1 | ... | 99·80 | 50·00 |
| 11 | Malegaon do. ( do. ) ... ... | 14 | 1 | 4 | 94·20 | 10·00 |
| 12 | Deolali Cantonment ... ... | 40 | 25 | 15 | 100·00 | 100·00 |
| 13 | In the 12 Rural circles, Local Fund ... | 1,092 | 296 | 560 | 99·85 | 55·64 |
| | Total ... | 1,642 | 444 | 706 | 99·71 | 47·43 |
| | THANA COLLECTORATE— | | | | | |
| 14 | Thana Town (Municipal) ... ... | 762 | 277 | 202 | 99·58 | 49·46 |
| 15 | Kalyan do. ( do. ) ... ... | 26 | 16 | 7 | 98·82 | 84·21 |
| 16 | In the 9 Rural circles, Local Fund ... | 484 | 227 | 155 | 99·90 | 69·00 |
| | Total ... | 1,272 | 520 | 364 | 99·87 | 57·27 |

No. I—*contd.*

| Persons successfully vaccinated per 1,000 of population. | Percentage of unknown cases to total cases. | | Average annual number of persons successfully vaccinated during previous five years. | | Average annual number of deaths from small-pox during previous five years. | |
|---|---|---|---|---|---|---|
| | Primary. | Re-vaccination. | Number. | Ratio per 1,000. | Number. | Ratio per 1,000. |
| 18 | 19 | 20 | 21 | 22 | 23 | 24 |
| 23·69 | 62·64 | 66·67 | 411 | 24·28 | 4 | ·24 |
| 23·47 | 22·28 | ..... | ..... | ..... | ..... | ..... |
| 17·06 | 26·19 | 100·00 | 308 | 1·30 | 10 | ·82 |
| 24·80 | 22·43 | 46·69 | 26,311 | 25·72 | 596 | ·58 |
| 2·69 | 21·30 | 59·32 | | | | |
| 27·17 | 22·26 | 47·57 | 29,768 | 27·67 | 610 | ·56 |
| 36·49 | 15·32 | 53·57 | 946 | 30·91 | 73 | 2·39 |
| 23·69 | 3·51 | ..... | 380 | 27·45 | 5 | ·36 |
| 27·01 | 24·88 | 45·45 | 15,165 | 25·39 | 359 | ·61 |
| 19·15 | 4·52 | 25·00 | | | | |
| ..... | ..... | ..... | ..... | ..... | ..... | ..... |
| 30·64 | 23·06 | 14·37 | 17,268 | 26·90 | 437 | ·68 |
| 36·11 | 13·57 | 25·71 | 1,268 | 29·66 | 21 | ·49 |
| 35·79 | 8·96 | ..... | 516 | 37·09 | 13 | ·93 |
| 19·91 | 20·88 | 28·57 | 727 | 30·66 | 140 | 5·90 |
| 6·57 | 41·98 | 37·50 | ..... | ..... | 1 | ·05 |
| 28·01 | 24·36 | 51·28 | 22,367 | 30·49 | 278 | ·38 |
| 27·88 | 23·53 | 42·75 | 25,027 | 30·06 | 453 | ·54 |
| 43·73 | 5·79 | 26·56 | 905 | 39·98 | 3 | ·13 |
| 19·63 | 9·14 | 26·92 | 301 | 16·88 | 13 | ·73 |
| 27·95 | 11·41 | 32·02 | 18,746 | 26·06 | 201 | ·28 |
| 28·22 | 11·19 | 28·62 | 20,042 | 26·38 | 217 | ·29 |

STATEMENT

| No. | Circles and Districts. | Population of District according to census of 1921. | Average population per square mile. | Average number of Vaccinators employed throughout the year. |
|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 |
| | WESTERN REGISTRATION DISTRICT —*contd.* | | | |
| | BOMBAY SUBURBAN DISTRICT— | | | |
| 17 | Bandra Town (Municipal) ... ... | 29,271 | ... | 1 |
| 18 | Kurla do. ( do. ) ... ... | 26,059 | ... | 1 |
| 19 | Santa Cruz Cantonment ... ... | 6,958 | ... | ... |
| 20 | In the 2 Rural circles, Local Fund ... | 91,948 | ... | 2 |
| | Total ... | 154,226 | ... | 4 |
| | KOLABA COLLECTORATE— | | | |
| 21 | Panwel Town (Local Fund) ... ... | 8,625 | 47 | ... |
| 22 | Alibag do. ( do. ) ... ... | 5,274 | 89 | ... |
| 23 | Mahad do. ( do. ) ... ... | 7,192 | 7,164 | ... |
| 24 | In the 8 Rural circles, Local Fund ... | 541,851 | 249 | 14 |
| | Total ... | 562,942 | 252 | 14 |
| | NATIVE STATES— | | | |
| 25 | Jawhar ... ... ... ... | 49,662 | 161 | 1 |
| 26 | Surgana ... ... ... ... | 14,912 | 41 | 1 |
| | Total ... | 64,574 | 153 | 2 |
| | TOTAL BY ESTABLISHMENT IN WESTERN REGISTRATION DISTRICT. | | | |
| | Local Fund ... ... ... ... | 3,728,151 | 172 | 79 |
| | Municipal ... ... ... ... | 273,451 | ... | 13 |
| | Cantonment ... ... ... ... | 25,742 | ... | ... |
| | Native States ... ... ... | 64,574 | 153 | 2 |
| | Dispensary ... ... ... | ..... | ..... | S.M.S. 1 |
| | Total ... | 4,091,918 | 182 | 94<br>S.M.S. 1 |

No. I—*contd.*

| Total number of persons vaccinated. | | | Average number of persons vaccinated by each Vaccinator. | Primary Vaccination. | | | | |
|---|---|---|---|---|---|---|---|---|
| | | | | Total. | Successful. | | | Unknown. |
| | | | | | Under one year. | One and under six years. | Total of all ages. | |
| 6 | | | 7 | 8 | 9 | 10 | 11 | 12 |
| Males. | Females. | Total. | | | | | | |
| P. 593 | 616 | 1,209 | 2,602 | 1,209 | 856 | 315 | 1,207 | ... |
| R. 670 | 723 | 1,393 | | | | | | |
| P. 466 | 412 | 878 | 1,222 | 878 | 449 | 102 | 564 | 314 |
| R. 193 | 151 | 344 | | | | | | |
| P. 2 | ..... | 2 | 181 | 2 | 2 | ... | 2 | ... |
| R. 176 | 3 | 179 | | | | | | |
| P. 1,607 | 1,445 | 3,052 | 1,651 | 3,052 | 1,797 | 739 | 2,559 | 484 |
| R. 154 | 96 | 250 | | | | | | |
| P. 2,668 | 2,473 | 5,141 | 1,827 | 5,141 | 3,104 | 1,156 | 4,332 | 798 |
| R. 1,198 | 973 | 2,166 | | | | | | |
| P. 94 | 93 | 188 | 184 | 188 | 84 | 62 | 151 | 32 |
| R. ..... | 1 | 1 | | | | | | |
| P. 90 | 69 | 157 | 159 | 159 | 74 | 57 | 133 | 26 |
| R. ..... | ... ... | ... | | | | | | |
| P. 51 | 33 | 84 | 84 | 84 | 33 | 45 | 80 | 4 |
| R. ..... | ..... | ... | | | | | | |
| P. 8,692 | 8,178 | 16,870 | 1,240 | 16,870 | 11,050 | 3,307 | 14,419 | 2,440 |
| R. 391 | 92 | 483 | | | | | | |
| P. 8,923 | 8,373 | 17,296 | 1,270 | 17,296 | 11,241 | 3,471 | 14,783 | 2,502 |
| R. 391 | 93 | 484 | | | | | | |
| P. 835 | 764 | 1,599 | 1,602 | 1,599 | 1,202 | 298 | 1,500 | 97 |
| R. 2 | 1 | 3 | | | | | | |
| P. 202 | 196 | 398 | 422 | 398 | 316 | 37 | 355 | 43 |
| R. 21 | 3 | 24 | | | | | | |
| P. 1,037 | 960 | 1,997 | 1,012 | 1,997 | 1,518 | 335 | 1,855 | 140 |
| R. 23 | 4 | 27 | | | | | | |
| P. 62,763 | 60,965 | 123,728 | 1,615 | 123,729 | 8,800 | 19,364 | 98,778 | 24,738 |
| R. 3,016 | 580 | 3,596 | | | | | | |
| P. 6,832 | 6,589 | 13,421 | 1,278 | 13,421 | 8,751 | 2,490 | 11,348 | 2,015 |
| R. 2,000 | 1,134 | 3,134 | | | | | | |
| P. 123 | 91 | 214 | 438 | 214 | 48 | 77 | 125 | 89 |
| R. 198 | 21 | 219 | | | | | | |
| P. 1,037 | 960 | 1,997 | 1,012 | 1,997 | 1,518 | 335 | 1,855 | 140 |
| R. 23 | 4 | 27 | | | | | | |
| P. 3 | 1 | 4 | 948 | 4 | 1 | 3 | 4 | ... |
| R. 888 | 51 | 939 | | | | | | |
| P. 70,758 | 68,606 | 139,364 | 1,569 | 139,365 | 89,118 | 22,269 | 112,110 | 26,932 |
| R. 6,125 | 2,090 | 8,215 | | | | | | |

STATEMENT

| No. | Circles and Districts. | Re-vaccination. | | | Percentage of successful cases in which the results were known. | |
|---|---|---|---|---|---|---|
| | | Total. | Successful. | Unknown. | Primary. | Re-vaccination. |
| 1 | 2 | 13 | 14 | 15 | 16 | 17 |
| | WESTERN REGISTRATION DISTRICT —*contd.* | | | | | |
| | BOMBAY SUBURBAN DISTRICT— | | | | | |
| 17 | Bandra Town (Municipal) ... ... | 1,393 | 653 | ... | 99·83 | 48·31 |
| 18 | Kurla do. ( do. ) ... ... | 344 | 83 | 254 | 100·00 | 92·22 |
| 19 | Santa Cruz Cantonment ... ... | 179 | 162 | 13 | 100·00 | 97·59 |
| 20 | In the 2 Rural circles, Local Fund ... | 250 | 170 | 50 | 99·65 | 85·00 |
| | Total ... | 2,166 | 1,068 | 317 | 99·95 | 57·76 |
| | KOLABA COLLECTORATE— | | | | | |
| 21 | Panwel Town (Local Fund) ... ... | 1 | 1 | ... | 100·00 | 100·00 |
| 22 | Alibag do. ( do. ) ... ... | ... | ... | ... | 100·00 | ... |
| 23 | Mahad do. ( do. ) ... ... | ... | ... | ... | 100·00 | ... |
| 24 | In the 8 Rural circles, Local Fund ... | 483 | 87 | 251 | 99·59 | 37·50 |
| | Total ... | 484 | 88 | 251 | 99·92 | 37·16 |
| | NATIVE STATES— | | | | | |
| 25 | Jawhar ... ... ... | 3 | 2 | ... | 99·86 | 66·66 |
| 26 | Surgana ... ... ... | 24 | 7 | 17 | 100·00 | 100·00 |
| | Total ... | 27 | 9 | 17 | 99·89 | 90·00 |
| | TOTAL BY ESTABLISHMENT IN WESTERN REGISTRATION DISTRICT. | | | | | |
| | Local Fund ... ... ... | 3,696 | 1,265 | 1,754 | 99·78 | 59·05 |
| | Municipal ... ... ... | 3,134 | 1,186 | 649 | 99·49 | 47·73 |
| | Cantonment ... ... ... | 219 | 187 | 28 | 100·00 | 97·99 |
| | Native States ... ... ... | 27 | 9 | 17 | 99·89 | 90·00 |
| | Dispensary ... ... ... | 939 | 939 | ... | ... | 100·00 |
| | Total ... | 8,215 | 3,586 | 2,248 | 99·76 | 62·17 |

No. I—*contd.*

| Persons successfully vaccinated per 1,000 of population. | Percentage of unknown cases to total cases. | | Average annual number of persons successfully vaccinated during previous five years. | | Average annual number of deaths from small-pox during previous five years. | |
|---|---|---|---|---|---|---|
| | Primary. | Re-vaccination. | Number. | Ratio per 1,000. | Number. | Ratio per 1,000. |
| 18 | 19 | 20 | 21 | 22 | 23 | 24 |
| 63·54 | ... | ... | 975 | 38·31 | 46 | 1·5 |
| 24·82 | 35·76 | 73·83 | 805 | 30·89 | 34 | 1·3 |
| 23·59 | ... | 7·26 | 88 | 12·66 | ... | ... |
| 29·68 | 15·85 | 100·00 | 2,525 | 27·47 | 81 | ·88 |
| 35·01 | 15·52 | 14·63 | 4,393 | 28·49 | 161 | 1·04 |
| 17·62 | 17·48 | ... | 175 | 20·29 | 8 | ·93 |
| 25·21 | 16·35 | ... | 122 | 23·13 | 5 | ·95 |
| 11·12 | 4·76 | ... | 138 | 19·19 | 8 | 1·11 |
| 26·77 | 14·46 | 51·96 | 14,664 | 27·06 | 198 | ·37 |
| 26·51 | 14·46 | 51·86 | 15,039 | 25·71 | 219 | ·39 |
| 30·24 | 62·62 | ... | 1,372 | 27·63 | ... | ... |
| 24·28 | 10·80 | 70·83 | 393 | 26·35 | ... | ... |
| 28·86 | 7·01 | 62·96 | ... | ..... | ... | ... |
| 26·83 | 19·99 | 45·02 | 99,657 | 26·73 | 1,739 | ·47 |
| 45·83 | 15·01 | 24·71 | 11,642 | 42·57 | 357 | 1·31 |
| 12·12 | 41·59 | 12·78 | 178 | 6·91 | 1 | ·04 |
| 28·86 | 7·01 | 62·96 | ... | ..... | ... | ... |
| ..... | ..... | ..... | ... | ..... | ... | ..... |
| 28·22 | 19·05 | 29·54 | 115,452 | 27·38 | 20·97 | ·50 |

STATEMENT

| No. | Circles and Districts. | Population of District according to census of 1921. | Average population per square mile. | Average number of Vaccinators employed throughout the year. |
|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 |
| 7 | BOMBAY CITY ... ... ... | 1,175,914 | 52,146 | 9 |
| | CENTRAL REGISTRATION DISTRICT. | | | |
| | AHMEDNAGAR COLLECTORATE— | | | |
| 28 | *Ahmednagar Town* (Municipal) ... | 34,358 | 11,292 | 1 |
| 29 | Ahmednagar Cantonment ... ... | 10,997 | 1,648 | ..... |
| 30 | Sangamner Town (Local Fund) ... | 12,737 | 23,761 | ..... |
| 31 | In the 12 Rural Circles (Local Fund) ... | 682,986 | 134 | 17 |
| | Total ... | 741,088 | 125 | 18 |
| | POONA COLLECTORATE— | | | |
| 32 | Poona City (Municipal) ... ... | 133,227 | 23,451 | 2 |
| 33 | Poona and Kirkee Cantonments ... | 41,032 | 3,392 | 2 |
| 34 | Junnar Town (Local Fund) ... | 7,331 | ..... | ..... |
| 35 | Baramati do. ( do. ) ... ... | 11,905 | ..... | ..... |
| 36 | Khed do. ( do. ) ... ... | 7,013 | ..... | ..... |
| 37 | Lonavla do. ( do. ) ... ... | 6,337 | ..... | ..... |
| 38 | In the 11 Rural Circles { Local Fund ... / Municipal ... } | 791,659 | 165 | 15 |
| 39 | Yeravda Central Prison ... ... | ..... | ..... | Medical Officer. 1 |
| | Total ... | 998,554 | 184 | 19 / Medical Officer. 1 |
| | SHOLAPUR COLLECTORATE— | | | |
| 40 | Sholapur Town (Municipal) ... | 119,347 | 12,269 | 2 |
| 41 | Barsi do. ( do. ) ... | 22,074 | 1,170 | 1 |
| 42 | Pandharpur do. ( do. ) ... | 25,210 | 47,583 | 1 |
| 43 | In the 7 Rural Circles { Local Fund ... / Municipal ... } | 575,606 | 146 | 11 |
| | Total ... | 742,237 | 163 | 15 |

No. I—*contd.*

| Total number of persons vaccinated. | | | | Average number of persons vaccinated by each Vaccinator. | Primary Vaccination. | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | Total. | Successful. | | | Unknown. |
| | | | | | | Under one year. | One and under six years. | Total of all ages. | |
| 6 | | | | 7 | 8 | 9 | 10 | 11 | 12 |
| Males. | | Females. | Total. | | | | | | |
| P. | 11,309 | 11,275 | 22,584 | 7,778 | 22,584 | 14,422 | 5,981 | 20,533 | 1,938 |
| R. | 39,907 | 7,581 | 47,416 | | | | | | |
| P. | 679 | 612 | 1,291 | 1,336 | 1,291 | 606 | 145 | 770 | 519 |
| R. | 24 | 21 | 45 | | | | | | |
| P. | 63 | 67 | 130 | 304 | 130 | 83 | 4 | 87 | 43 |
| R. | 141 | 33 | 174 | | | | | | |
| P. | 190 | 180 | 370 | 379 | 370 | 190 | 89 | 282 | 86 |
| R. | 7 | 2 | 9 | | | | | | |
| P. | 12,911 | 13,070 | 25,981 | 1,599 | 26,983 | 18,211 | 4,364 | 22,653 | 3,311 |
| R. | 1,057 | 154 | 1,211 | | | | | | |
| P. | 13,843 | 13,929 | 27,772 | 1,623 | 27,774 | 19,090 | 4,602 | 23,792 | 3,959 |
| R. | 1,239 | 210 | 1,449 | | | | | | |
| P. | 2,116 | 2,152 | 4,268 | 2,251 | 4,268 | 3,284 | 682 | 4,001 | 264 |
| R. | 199 | 36 | 235 | | | | | | |
| P. | 755 | 665 | 1,420 | 1,244 | 1,420 | 1,010 | 217 | 1,234 | 184 |
| R. | 780 | 289 | 1,069 | | | | | | |
| P. | 146 | 124 | 270 | 311 | 270 | 139 | 111 | 256 | 14 |
| R. | 39 | 2 | 41 | | | | | | |
| P. | 113 | 101 | 214 | 214 | 214 | 153 | 46 | 199 | 15 |
| R. | ..... | ..... | ... | | | | | | |
| P. | 112 | 126 | 238 | 239 | 238 | 164 | 55 | 219 | 19 |
| R. | 1 | ..... | 1 | | | | | | |
| P. | 112 | 116 | 228 | 231 | 228 | 130 | 75 | 207 | 21 |
| R. | 2 | 1 | 3 | | | | | | |
| P. | 10,923 | 10,820 | 21,743 | 1,645 | 21,743 | 14,741 | 3,913 | 18,759 | 2,978 |
| R. | 2,130 | 168 | 2,298 | | | | | | |
| P. | 243 | 194 | 427 | | 427 | 264 | 69 | 340 | 87 |
| R. | 133 | 77 | 210 | | | | | | |
| P. | 8 | 6 | 14 | 1,256 | 14 | 9 | 4 | 14 | ... |
| R. | 1,135 | 107 | 1,242 | | | | | | |
| P. | 14,518 | 14,304 | 28,822 | 1,720 | 28,822 | 19,894 | 5,172 | 25,229 | 3,582 |
| R. | 3,284 | 573 | 3,857 | | | | | | |
| P. | 1,845 | 1,828 | 3,683 | 1,868 | 3,686 | 1,941 | 934 | 2,930 | 748 |
| R. | 42 | 11 | 53 | | | | | | |
| P. | 558 | 444 | 1,002 | 1,004 | 1,002 | 443 | 366 | 818 | 183 |
| R. | ..... | 2 | 2 | | | | | | |
| P. | 543 | 498 | 1,041 | 1,180 | 1,041 | 524 | 199 | 732 | 309 |
| R. | 114 | 25 | 139 | | | | | | |
| P. | 8,921 | 8,935 | 17,856 | 1,660 | 17,857 | 11,265 | 4,056 | 15,407 | 2,445 |
| R. | 397 | 6 | 403 | | | | | | |
| P. | 788 | 775 | 1,563 | 1,577 | 1,563 | 1,018 | 379 | 1,411 | 152 |
| R. | 14 | ..... | 14 | | | | | | |
| P. | 12,655 | 12,490 | 25,145 | 1,717 | 25,149 | 15,191 | 5,927 | 21,298 | 3,837 |
| R. | 567 | 44 | 611 | | | | | | |

STATEMENT

| No. | Circles and Districts. | Re-vaccination. | | | Percentage of successful cases in which the results were known. | |
|---|---|---|---|---|---|---|
| | | Total. | Successful. | Unknown. | Primary. | Re-vaccination. |
| 1 | 2 | 13 | 14 | 15 | 16 | 17 |
| 27 | BOMBAY CITY ... ... ... | 47,416 | 15 | 47,401 | 99·43 | 100·00 |
| | CENTRAL REGISTRATION DISTRICT. | | | | | |
| | AHMEDNAGAR COLLECTORATE— | | | | | |
| 28 | Ahmednagar Town (Municipal) ... ... | 45 | ... | 20 | 99·74 | ... |
| 29 | Ahmednagar Cantonment ... ... | 174 | 32 | 89 | 100·00 | 37·65 |
| 30 | Sangamner Town (Local Fund) ... ... | 9 | 1 | 4 | 99·30 | 20·00 |
| 31 | In the 12 Rural Circles (Local Fund) ... | 1,311 | 527 | 417 | 99·92 | 66·37 |
| | Total ... | 1,439 | 560 | 530 | 99·90 | 61·61 |
| | POONA COLLECTORATE— | | | | | |
| 32 | Poona City (Municipal) ... ... | 235 | 17 | 110 | 99·93 | 13·60 |
| 33 | Poona and Kirkee Cantonments ... | 1,069 | 187 | 708 | 99·84 | 51·80 |
| 34 | Junnar Town (Local Fund) ... ... | 41 | 13 | 16 | 100·00 | 52·00 |
| 35 | Baramati do. ( do. ) ... ... | ... | ... | ... | 100·00 | ... |
| 36 | Khed do. ( do. ) ... ... | 1 | ... | ... | 100·00 | ... |
| 37 | Lonavla do. ( do. ) ... ... | 3 | 1 | ... | 100·00 | 33·33 |
| 38 | In the 11 Rural Circles {Local Fund ... | 2,298 | 796 | 693 | 99·97 | 48·35 |
| | {Municipal ... | 210 | 73 | 61 | 100·00 | 48·99 |
| 39 | Yeravda Central Prison ... ... | 1,242 | 25 | 26 | 100·00 | 2·06 |
| | Total ... | 5,099 | 1,112 | 1,614 | 99·96 | 31·91 |
| | SHOLAPUR COLLECTORATE— | | | | | |
| 40 | Sholapur Town (Municipal) ... ... | 53 | 9 | 40 | 99·73 | 69·23 |
| 41 | Barsi do. ( do. ) ... ... | 2 | ... | 2 | 99·88 | ... |
| 42 | Pandharpur do. ( do. ) ... ... | 139 | 70 | 67 | 100·00 | 97·22 |
| 43 | In the 7 Rural Circles {Local Fund ... | 404 | 182 | 148 | 99·97 | 71·09 |
| | {Municipal ... | 14 | 8 | 6 | 100·00 | 100·00 |
| | Total ... | 612 | 269 | 263 | 99·98 | 77·08 |

No. I—*contd.*

| Persons successfully vaccinated per 1,000 of population. | Percentage of unknown cases to total cases. | | Average annual number of persons successfully vaccinated during previous five years. | | Average annual number of deaths from small-pox during previous five years. | |
|---|---|---|---|---|---|---|
| | Primary. | Re-vaccination. | Number. | Ratio per 1,000. | Number. | Ratio per 1,000. |
| 18 | 19 | 20 | 21 | 22 | 23 | 24 |
| 17·47 | 8·56 | 99·97 | 18,740 | 15·94 | 750 | ·57 |
| 22·41 | 40·20 | 44·44 | 1,409 | 41·01 | 26 | ·76 |
| 10·82 | 33·08 | 51·15 | 395 | 35·92 | ..... | ..... |
| 22·22 | 23·24 | 44·44 | 293 | 23·00 | ..... | ..... |
| 33·94 | 12·74 | 34·43 | 20,162 | 29·52 | 116 | ·17 |
| 32·86 | 14·25 | 36·83 | 22,259 | 30·04 | 142 | ·19 |
| 30·10 | 5·19 | 4·68 | 4,054 | 30·43 | 210 | 1·58 |
| 34·63 | 12·53 | 66·23 | 1,579 | 38·48 | 3 | ·07 |
| 36·44 | 5·19 | 39·02 | 220 | 29·81 | 5 | ·67 |
| 16·72 | 7·01 | ..... | 399 | 33·52 | 2 | ·17 |
| 31·23 | 7·98 | ..... | 103 | 14·69 | 1 | ·14 |
| 32·82 | 9·30 | ..... | 144 | 22·72 | 6 | ·95 |
| 25·22 | 13·69<br>20·37 | 3·19<br>29·05 | 20,098 | 25·39 | 124 | 1·16 |
| ..... | ..... | 2·09 | ..... | ..... | ..... | ..... |
| 26·38 | 12·43 | 31·65 | 26,597 | 26·64 | 351 | ·35 |
| 24·63 | 20·03 | 75·64 | 3,214 | 26·93 | 150 | 1·26 |
| 37·36 | 18·26 | 100·00 | 716 | 32·44 | 22 | 1·00 |
| 31·81 | 29·68 | 48·20 | 649 | 25·74 | 13 | ·52 |
| 29·55 | 13·69<br>9·72 | 36·64<br>42·86 | 16,103 | 27·98 | 62 | 0·11 |
| 29·06 | 15·25 | 42·97 | 20,682 | 27·86 | 247 | 0·33 |

STATEMENT

| No. | Circles and Districts. | Population of District according to census of 1921. | Average population per square mile. | Average number of Vaccinators employed throughout the year. |
|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 |
| | CENTRAL REGISTRATION DISTRICT—*contd.* | | | |
| | SATARA COLLECTORATE— | | | |
| 44 | Satara Town (Municipal) ... ... | 20,045 | 7,485 | 1 |
| 45 | Wai do. (Local Fund) ... ... | 10,211 | 1,266 | ..... |
| 46 | Karad do. ( do. ) ... ... | 10,243 | 6,381 | ..... |
| 47 | Ashta do. ( do. ) ... ... | 9,021 | ..... | ..... |
| 48 | Islampur do. ( do. ) ... ... | 7,916 | ..... | ..... |
| 49 | In the 14 Rural Circles { Local Fund ... / Municipal ... } | 967,974 | 213 | 19 |
| | Total ... | 1,025,410 | 209 | 20 |
| | RATNAGIRI COLLECTORATE— | | | |
| 50 | Ratnagiri Town (Local Fund) ... ... | 14,600 | 2,643 | ..... |
| 51 | Chiplun do. ( do. ) ... ... | 11,005 | ..... | ..... |
| 52 | Malwan do. ( do. ) ... ... | 22,215 | ..... | ..... |
| 53 | Vengurla do. ( do. ) ... ... | 19,126 | 5,764 | ..... |
| 54 | In the 11 Rural Circles (Local Fund) ... | 1,128,270 | 286 | 21 |
| | Total ... | 1,195,216 | 289 | 21 |
| | TOTAL BY ESTABLISHMENT IN CENTRAL REGISTRATION DISTRICT. | | | |
| | Local Fund ... ... ... ... | 4,201,029 | 185 | 83 |
| | Municipal ... ... ... ... | 449,467 | 7,979 | 8 |
| | Cantonment ... ... ... ... | 52,009 | 2,752 | 2 |
| | Dispensary ... ... ... ... | ..... | ..... | ..... |
| | Total ... | 4,702,505 | ..... | 93 |

No. I—*contd.*

| | Total number of persons vaccinated. | | | Average number of persons vaccinated by each Vaccinator. | Primary Vaccination. | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | Total. | Successful. | | | Unknown. |
| | | | | | | Under one year. | One and under six years. | Total of all ages. | |
| | 6 | | | 7 | 8 | 9 | 10 | 11 | 12 |
| | Males. | Females. | Total. | | | | | | |
| P. | 249 | 241 | 490 | 522 | 490 | 293 | 155 | 459 | 31 |
| R. | 22 | 10 | 32 | | | | | | |
| P. | 194 | 165 | 359 | 384 | 359 | 240 | 109 | 355 | 3 |
| R. | 18 | 7 | 25 | | | | | | |
| P. | 120 | 153 | 273 | 273 | 273 | 223 | 48 | 271 | 2 |
| R. | ... | ... | ... | | | | | | |
| P. | 114 | 103 | 217 | 217 | 217 | 186 | 16 | 203 | 14 |
| R. | 1 | ... | 1 | | | | | | |
| P. | 126 | 101 | 227 | 237 | 227 | 194 | 22 | 216 | 11 |
| R. | 10 | ... | 10 | | | | | | |
| P. | 15,166 | 14,552 | 29,718 | 1,597 | 29,718 | 23,384 | 3,515 | 27,001 | 2,713 |
| R. | 503 | 118 | 621 | | | | | | |
| P. | 49 | 52 | 101 | 103 | 101 | 66 | 23 | 90 | 11 |
| R. | 1 | 1 | 2 | | | | | | |
| P. | 16,018 | 15,367 | 31,385 | 1,604 | 31,385 | 24,586 | 3,888 | 28,595 | 2,785 |
| R. | 555 | 136 | 691 | | | | | | |
| P. | 147 | 160 | 307 | 390 | 307 | 191 | 104 | 301 | 6 |
| R. | 63 | 20 | 83 | | | | | | |
| P. | 169 | 192 | 361 | 418 | 361 | 183 | 143 | 329 | 32 |
| R. | 54 | 3 | 57 | | | | | | |
| P. | 192 | 185 | 377 | 377 | 377 | 246 | 114 | 366 | 11 |
| R. | ... | ... | ... | | | | | | |
| P. | 168 | 156 | 324 | 392 | 324 | 134 | 144 | 315 | 9 |
| R. | 17 | 51 | 68 | | | | | | |
| P. | 17,230 | 16,509 | 33,739 | 1,652 | 33,741 | 23,301 | 7,230 | 31,039 | 2,697 |
| R. | 643 | 319 | 962 | | | | | | |
| P. | 17,996 | 17,202 | 35,108 | 1,775 | 35,110 | 24,055 | 7,735 | 32,330 | 2,755 |
| R. | 777 | 393 | 1,170 | | | | | | |
| P. | 67,054 | 65,748 | 132,802 | 1,680 | 132,807 | 93,275 | 24,154 | 117,378 | 14,387 |
| R. | 4,942 | 851 | 5,793 | | | | | | |
| P. | 7,060 | 6,806 | 13,866 | 1,827 | 13,869 | 8,439 | 2,945 | 11,551 | 2,304 |
| R. | 549 | 183 | 732 | | | | | | |
| P. | 818 | 732 | 1,550 | 1,396 | 1,550 | 1,093 | 221 | 1,321 | 227 |
| R. | 921 | 322 | 1,243 | | | | | | |
| P. | 8 | 6 | 14 | 1,256 | 14 | 9 | 4 | 14 | ... |
| R. | 1,135 | 107 | 1,242 | | | | | | |
| P. | 74,940 | 73,292 | 148,232 | 1,677 | 148,240 | 102,816 | 27,324 | 131,264 | 16,918 |
| R. | 7,547 | 1,463 | 9,010 | | | | | | |

STATEMENT

| No. | Circles and Districts. | Re-vaccination. | | | Percentage of successful cases in which the results were known. | |
|---|---|---|---|---|---|---|
| | | Total. | Successful. | Unknown. | Primary. | Re-vaccination. |
| 1 | 2 | 13 | 14 | 15 | 16 | 17 |
| | CENTRAL REGISTRATION DISTRICT—*contd.* | | | | | |
| | SATARA COLLECTORATE— | | | | | |
| 44 | Satara Town (Municipal) ... ... | 53 | 1 | 5 | 100·00 | 3·74 |
| 45 | Wai do. (Local Fund) ... ... | 25 | 5 | 2 | 99·72 | 21·74 |
| 46 | Karad do. ( do. ) ... ... | ... | ... | ... | 100·00 | ... |
| 47 | Ashta do. ( do. ) ... ... | 1 | ... | 1 | 100·00 | ... |
| 48 | Islampur do. ( do. ) ... ... | 10 | 2 | 5 | 100·00 | 40·00 |
| 49 | In the 14 Rural Circles { Local Fund ... | 621 | 201 | 205 | 99·99 | 48·52 |
| | { Municipal ... | 2 | ... | ... | 100·00 | ... |
| | Total ... | 691 | 209 | 218 | 99·98 | 44·19 |
| | RATNAGIRI COLLECTORATE— | | | | | |
| 50 | Ratnagiri Town (Local Fund) ... ... | 83 | 40 | 29 | 100·00 | 74·07 |
| 51 | Chiplun do. ( do. ) ... ... | 57 | 38 | 19 | 100·00 | 100·00 |
| 52 | Malwan do. ( do. ) ... ... | ... | ... | ... | 97·88 | ... |
| 53 | Vengurla do. ( do. ) ... ... | 68 | 38 | 2 | 100·00 | 57·57 |
| 54 | In the 11 Rural Circles (Local Fund) ... | 962 | 553 | 233 | 99·98 | 75·86 |
| | Total ... | 1,170 | 669 | 288 | 99·98 | 75·42 |
| | TOTAL BY ESTABLISHMENT IN CENTRAL REGISTRATION DISTRICT. | | | | | |
| | Local Fund ... ... ... | 5,794 | 2,397 | 1,774 | 99·96 | 59·63 |
| | Municipal ... ... ... | 732 | 178 | 311 | 99·88 | 43·28 |
| | Cantonment ... ... ... | 1,243 | 219 | 797 | 100·00 | 49·10 |
| | Dispensary ... ... ... | 1,242 | 25 | 26 | 100·00 | 2·06 |
| | Total ... | 9,011 | 2,819 | 2,908 | 99·96 | 46·20 |

No. I—*contd.*

| Persons successfully vaccinated per 1,000 of population. | Percentage of unknown cases to total cases. | | Average annual number of persons successfully vaccinated during previous five years. | | Average annual number of deaths from small-pox during previous five years. | |
|---|---|---|---|---|---|---|
| | Primary. | Re-vaccination. | Number. | Ratio per 1,000. | Number. | Ratio per 1,000. |
| 18 | 19 | 20 | 21 | 22 | 23 | 24 |
| 22·95 | 6·33 | 15·62 | 626 | 31·23 | 8 | ·40 |
| 35·26 | 0·84 | 8·00 | 347 | 33·08 | 4 | ·33 |
| 26·45 | 0·54 | ..... | 326 | 31·83 | 1 | ·09 |
| 22·38 | 6·45 | 100·00 | 214 | 23·72 | ... | ... |
| 27·53 | 4·84 | 50·00 | 251 | 31·71 | 5 | ·63 |
| 28·09 | 9·13<br>10·89 | 33·01<br>..... | 27,693 | 28·61 | 146 | ·15 |
| 28·09 | 8·88 | 31·55 | 29,457 | 28·72 | 164 | ·16 |
| 23·47 | 1·53 | 34·94 | 620 | 42·47 | 7 | ·55 |
| 33·34 | 8·86 | 33·33 | 236 | 21·44 | 8 | ·73 |
| 16·47 | 2·92 | ..... | 442 | 19·90 | 5 | ·23 |
| 18·45 | 2·78 | 2·94 | 279 | 14·58 | 3 | ·15 |
| 28·00 | 7·99 | 24·22 | 31,362 | 17·15 | 340 | ·30 |
| 27·63 | 7·84 | 24·19 | 32,939 | 27·56 | 363 | ·30 |
| 28·75 | 10·83 | 30·62 | 117,313 | 42·21 | 758 | ·18 |
| 26·10 | 16·61 | 42·48 | 12,066 | 26·85 | 490 | 1·09 |
| 29·61 | 14·65 | 64·12 | 1,666 | 32·03 | 4 | ·08 |
| ..... | ..... | 2·09 | ..... | ..... | ..... | ..... |
| 28·51 | 11·41 | 32·27 | 131,045 | 27·87 | 1,523 | ·27 |

STATEMENT

| No. | Circles and Districts. | Population of District according to census of 1921. | Average population per square mile. | Average number of Vaccinators employed throughout the year. |
|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 |
| | **SOUTHERN REGISTRATION DISTRICT.** | | | |
| | BELGAUM COLLECTORATE— | | | |
| 55 | Gokak Town (Municipal) ... ... | 9,989 | 18,184 | ... |
| 56 | Athni do. ( do. ) ... ... | 13,538 | 15,052 | .. |
| 57 | Belgaum do. ( do. ) ... ... | 26,219 | 69,59 | 2 |
| 58 | Do. Cantonment ... | 6,269 | 3,369 | S. A. S. 1 |
| 59 | In the 8 Rural circles ... ... | 883,101 | 190 | 17 |
| 60 | Hindalgi Cantonment Prison .. | ..... | ..... | M. O. 1 |
| | Total ... | 949,662 | 4,611 | 18 |
| | | | | S. A. S. 1 |
| | | | | M. O. 1 |
| | DHARWAR COLLECTORATE— | | | |
| 61 | Dharwar Town (Municipal) ... | 34,327 | 25,839 | 1 |
| 62 | Hubli do. ( do. ) ... | 69,140 | 52,067 | 1 |
| 63 | Gadag-Betgeri do. ( do. ) ... | 41,158 | 108,675 | 1 |
| 64 | Ranebennur do. (Local Fund) ... | 13,930 | 29,543 | ... |
| 65 | In the 13 Rural circles ( do. ) ... | 877,654 | 194 | 19 |
| | Total ... | 1,036,209 | 4,606 | 22 |
| | BIJAPUR COLLECTORATE— | | | |
| 66 | Bijapur Town (Municipal) ... ... | 32,471 | 129 | 1 |
| 67 | Bagalkot do. ( do. ) ... ... | 19,471 | 393 | 1 |
| 68 | In the 8 Rural circles ... ... ... | 744,414 | 42 | 16 |
| 69 | Bijapur Prison ... ... ... | ..... | ..... | M. O. 1 |
| | Total ... | 796,356 | 5,707 | 18 |
| | | | | M. O. 1 |

No. I—*contd.*

| Total number of persons vaccinated. | | | Average number of persons vaccinated by each Vaccinator. | Primary Vaccination. | | | | |
|---|---|---|---|---|---|---|---|---|
| | | | | Total. | Successful. | | | Unknown. |
| | | | | | Under one year. | One and under six years. | Total of all ages. | |
| 6. | | | 7 | 8 | 9 | 10 | 11 | 12 |
| Males. | Females. | Total. | | | | | | |
| P. 124 | 135 | 259 | 344 | 259 | 166 | 56 | 223 | 33 |
| R. 85 | ..... | 85 | | | | | | |
| P. 209 | 214 | 423 | 764 | 423 | 284 | 57 | 376 | 47 |
| R. 255 | 86 | 341 | | | | | | |
| P. 607 | 608 | 1,215 | 1,230 | 1,215 | 802 | 385 | 1,195 | 19 |
| R. 9 | 6 | 15 | | | | | | |
| P. 99 | 113 | 212 | 388 | 212 | 128 | 79 | 212 | ... |
| R. 55 | 121 | 176 | | | | | | |
| P. 14,629 | 14,300 | 28,929 | 2,395 | 28,929 | 21,694 | 5,377 | 27,299 | 1,572 |
| R. 10,521 | 1,268 | 11,789 | | | | | | |
| P. ..... | ..... | ... | 305 | ... | ... | ... | ... | ... |
| R. 280 | 25 | 305 | | | | | | |
| P. 15,668 | 15,370 | 31,038 | 2,187 | 31,038 | 23,074 | 5,983 | 29,305 | 1,671 |
| R. 11,205 | 1,506 | 12,711 | | | | | | |
| P. 650 | 628 | 1,278 | 1,733 | 1,278 | 1,082 | 188 | 1,277 | ... |
| R. 437 | 18 | 455 | | | | | | |
| P. 1,327 | 1,270 | 2,597 | 2,836 | 2,597 | 2,257 | 282 | 2,556 | 41 |
| R. 156 | 83 | 239 | | | | | | |
| P. 654 | 633 | 1,287 | 1,842 | 1,287 | 1,032 | 175 | 1,214 | 73 |
| R. 463 | 92 | 555 | | | | | | |
| P. 302 | 326 | 628 | 847 | 628 | 424 | 167 | 604 | 24 |
| R. 161 | 58 | 219 | | | | | | |
| P. 13,051 | 12,664 | 25,715 | 2,261 | 25,715 | 17,637 | 6,547 | 24,496 | 1,191 |
| R. 14,363 | 2,890 | 17,253 | | | | | | |
| P. 15,984 | 15,521 | 31,505 | 2,283 | 31,505 | 22,432 | 7,359 | 30,147 | 1,329 |
| R 15,580 | 3,141 | 18,721 | | | | | | |
| P. 582 | 549 | 1,131 | 1,745 | 1,131 | 827 | 288 | 1,126 | 3 |
| P. 565 | 49 | 614 | | | | | | |
| R. 356 | 385 | 741 | 1,196 | 741 | 558 | 126 | 694 | 47 |
| R. 437 | 18 | 455 | | | | | | |
| P. 12,682 | 12,315 | 24,997 | 2,305 | 24,997 | 17,627 | 6,640 | 24,500 | 491 |
| R. 10,410 | 1,481 | 11,891 | | | | | | |
| P. ..... | ..... | ... | 707 | ... | ... | ... | ... | ... |
| R. 696 | 11 | 707 | | | | | | |
| P. 13,620 | 13,249 | 26,869 | 2,133 | 26,869 | 19,012 | 7,054 | 26,320 | 541 |
| R. 12,108 | 1,559 | 13,667 | | | | | | |

STATEMENT

| No. | Circles and Districts. | Re-vaccination. | | | Percentage of successful cases in which the results were known. | |
|---|---|---|---|---|---|---|
| | | Total. | Successful. | Unknown. | Primary. | Re-vaccination |
| 1 | 2 | 13 | 14 | 15 | 16 | 17 |
| | SOUTHERN REGISTRATION DISTRICT. | | | | | |
| | BELGAUM COLLECTORATE— | | | | | |
| 55 | Gokak Town (Municipal) ... ... | 85 | 28 | 24 | 98·67 | 45·90 |
| 56 | Athni do. ( do. ) ... ... | 341 | 47 | 93 | 100·00 | 18·95 |
| 57 | Belgaum do. ( do. ) ... ... | 15 | ... | 10 | 99·92 | ... |
| 58 | Do. Cantonment ... ... | 176 | 121 | 2 | 100·00 | 69·54 |
| 59 | In the 8 Rural circles ... ... | 11,789 | 2,787 | 3,193 | 99·79 | 32·42 |
| 60 | Hindalgi Cantonment Prison ... ... | 305 | 305 | ... | ... | 100·00 |
| | Total ... | 12,711 | 3,288 | 3,322 | 99·79 | 35·02 |
| | DHARWAR COLLECTORATE— | | | | | |
| 61 | Dharwar Town (Municipal) ... ... | 455 | 179 | 5 | 99·92 | 39·78 |
| 62 | Hubli do. ( do. ) ... ... | 239 | 22 | 5 | 100·00 | 9·40 |
| 63 | Gadag-Betgeri do. ( do. ) ... ... | 555 | 294 | 109 | 100·00 | 65·92 |
| 64 | Ranebennur do. (Local Fund) ... | 219 | 44 | 25 | 100·00 | 22·68 |
| 65 | In the 13 Rural circles ( do. ) ... | 17,253 | 3,542 | 5,997 | 99·89 | 31·47 |
| | Total ... | 18,721 | 4,081 | 6,141 | 99·90 | 32·60 |
| | BIJAPUR COLLECTORATE— | | | | | |
| 66 | Bijapur Town (Municipal) ... ... | 614 | 239 | 14 | 99·82 | 39·88 |
| 67 | Bagalkot do. ( do. ) ... ... | 455 | 187 | 64 | 100·00 | 47·88 |
| 68 | In the 8 Rural circles ... ... | 11,891 | 3,275 | 3,108 | 99·97 | 37·27 |
| 69 | Bijapur Prison ... ... | 707 | 351 | 28 | ... | 51·69 |
| | Total ... | 13,667 | 4,052 | 3,209 | 99·97 | 38·65 |

No. I—*contd.*

| Persons successfully vaccinated per 1,000 of population. | Percentage of unknown cases to total cases. | | Average annual number of persons successfully vaccinated during previous five years. | | Average annual number of deaths from small-pox during previous five years. | |
|---|---|---|---|---|---|---|
| | Primary. | Re-vaccination. | Number. | Ratio per 1,000. | Number. | Ratio per 1,000. |
| 18 | 19 | 20 | 21 | 22 | 23 | 24 |
| 25·13 | 12·74 | 28·24 | 376 | 37·64 | 6 | ·60 |
| 31·25 | 11·11 | 27·27 | 360 | 28·07 | ..... | ..... |
| 32·99 | 1·56 | 66·67 | 1,388 | 38·32 | 14 | ·39 |
| 48·34 | ..... | 1·14 | 326 | 47·32 | 1 | ·15 |
| 34·07 | 5·26 | 27·09 | 30,572 | 34·62 | 90 | ·10 |
| ..... | ..... | ..... | 386 | ..... | ..... | ..... |
| 34·32 | 5·38 | 25·13 | 33,428 | 35·20 | 111 | ·12 |
| 42·42 | ..... | 2·09 | 1,489 | 43·38 | 1 | ·03 |
| 37·29 | 1·58 | 2·09 | 2,734 | 39·54 | 3 | ·04 |
| 36·64 | 5·67 | 19·64 | 1,654 | 40·19 | 9 | ·22 |
| 46·52 | 3·82 | 11·42 | 443 | 31·60 | 1 | ·07 |
| 31·95 | 4·63 | 34·76 | 25,657 | 29·23 | 65 | ·07 |
| 33·03 | 4·22 | 32·80 | 31,977 | 30·86 | 79 | ·08 |
| 42·04 | ·27 | ·65 | 1,490 | 45·89 | 5 | ·15 |
| 45·25 | 6·42 | 14·07 | 653 | 33·54 | 1 | ·05 |
| 37·31 | 1·96 | 26·10 | 27,560 | 80·02 | 54 | ·16 |
| ..... | ..... | 3·96 | 453 | ..... | ..... | ..... |
| 38·14 | 2·01 | 23·48 | 30,156 | 37·87 | 60 | ·76 |

STATEMENT

| No. | Circles and Districts. | Population of District according to census of 1921. | Average population per square mile. | Average number of Vaccinators employed throughout the year. |
|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 |
| | SOUTHERN REGISTRATION DISTRICT—*contd.* | | | |
| | KANARA DISTRICT— | | | |
| 70 | Karwar Town (Municipal) ... ... | 14,463 | 1,533 | 1 |
| 71 | Kumtha Town (Local Fund) ... ... | 14,291 | 1,407 | ..... |
| 72 | In the 11 Rural circles (Local Fund) ... | 372,722 | 102 | 15 |
| | Total ... | 401,476 | 3,946 | 16 |
| | BIJAPUR AGENCY— | | | |
| 73 | Jath and Daflapur ... ... ... | 82,654 | 84 | 2 |
| | DHARWAR AGENCY— | | | |
| 74 | Savanur State ... ... ... | 16,830 | 240 | 1 |
| | TOTAL BY ESTABLISHMENT IN THE SOUTHERN REGISTRATION DISTRICT— | | | |
| | Municipal ... | 270,776 | ..... | 7 |
| | Local Funds ... ... ... | 2,906,112 | ..... | 67 |
| | Cantonment ... ... ... | 6,889 | 3,369 | S. A. S. 1 |
| | Native States ... ... ... | 99,484 | ..... | 3 |
| | Dispensaries ... ... ... | ..... | ..... | ..... |
| | Grand Total ... | 3,283,261 | ..... | 77 |
| | GUJARAT REGISTRATION DISTRICT. | | | |
| | SURAT COLLECTORATE— | | | |
| 75 | Surat City (Municipal) ... ... | 117,434 | 89,144 | 2 |
| 76 | Rander Town (Local Fund) ... ... | 10,547 | 19,581 | ..... |
| 77 | Bulsar do. ( do. ) ... ... | 19,822 | 7,929 | ..... |
| 78 | In the 9 Rural circles (Local Fund) ... | 526,548 | 321 | 11 |
| 79 | Mission Hospital, Bulsar ... ... | ..... | ..... | ..... |
| 80 | Surat Dispensary ... ... ... | ..... | ..... | ..... |
| | Total ... | 674,351 | 40·8 | 13 |

No. I—*contd.*

| Total number of persons vaccinated. | | | Average number of persons vaccinated by each Vaccinator. | Primary Vaccination. | | | | |
|---|---|---|---|---|---|---|---|---|
| | | | | Total. | Successful. | | | Unknown. |
| | | | | | Under one year. | One and under six years. | Total of all ages. | |
| 6 | | | 7 | 8 | 9 | 10 | 11 | 12 |
| Males. | Females. | Total. | | | | | | |
| P. 176 | 135 | 311 | 421 | 311 | 38 | 251 | 301 | 9 |
| R. 106 | 4 | 110 | | | | | | |
| P. 134 | 121 | 255 | 392 | 255 | 47 | 180 | 255 | ... |
| R. 106 | 31 | 137 | | | | | | |
| P. 5,265 | 4,466 | 9,731 | 893 | 9,731 | 2,964 | 5,641 | 9,393 | 133 |
| R. 2,802 | 859 | 3,661 | | | | | | |
| P. 5,575 | 4,722 | 10,297 | 888 | 10,297 | 3,049 | 6,072 | 10,149 | 142 |
| R. 3,014 | 894 | 3,908 | | | | | | |
| P. 1,034 | 1,032 | 2,066 | 1,346 | 2,066 | 1,187 | 877 | 2,066 | ... |
| R. 573 | 53 | 626 | | | | | | |
| P. 427 | 472 | 899 | 1,430 | 899 | 746 | 99 | 870 | 29 |
| R. 327 | 204 | 531 | | | | | | |
| P. 4,685 | 4,557 | 9,242 | 1,730 | 9,242 | 7,046 | 1,837 | 8,962 | 272 |
| R. 2,513 | 356 | 2,869 | | | | | | |
| P. 46,063 | 44,192 | 90,255 | 2,018 | 90,255 | 60,393 | 24,552 | 86,747 | 3,411 |
| R. 38,363 | 6,587 | 44,950 | | | | | | |
| P. 99 | 113 | 212 | 388 | 212 | 128 | 79 | 212 | ... |
| R. 55 | 121 | 176 | | | | | | |
| P. 1,461 | 1,504 | 2,965 | 1,374 | 2,935 | 1,933 | 976 | 2,936 | 29 |
| R. 900 | 257 | 1,157 | | | | | | |
| P. ..... | ..... | ... | 506 | ... | ... | ... | ... | ... |
| R. 976 | 36 | 1,012 | | | | | | |
| P. 52,308 | 50,366 | 102,674 | 1,984 | 102,674 | 69,530 | 27,444 | 98,857 | 3,712 |
| R. 42,807 | 7,357 | 50,164 | | | | | | |
| P. 1,515 | 1,405 | 2,920 | 1,487 | 2,920 | 1,477 | 936 | 2,423 | 495 |
| R. 44 | 11 | 55 | | | | | | |
| P. 130 | 137 | 267 | 271 | 267 | 78 | 83 | 162 | 105 |
| R. 2 | 2 | 4 | | | | | | |
| P. 237 | 234 | 471 | 479 | 471 | 203 | 224 | 433 | 38 |
| R. 4 | 4 | 8 | | | | | | |
| P. 8,351 | 8,067 | 16,418 | 1,555 | 16,418 | 10,916 | 3,500 | 14,472 | 1,930 |
| R. 489 | 195 | 684 | | | | | | |
| P. 4 | 5 | 9 | 33 | 9 | 4 | 4 | 8 | ... |
| R. 7 | 17 | 24 | | | | | | |
| ... ... | ..... | ... | ..... | ... | ... | ... | ... | ... |
| P. 10,237 | 9,848 | 20,085 | 1,605 | 20,085 | 12,678 | 4,747 | 17,498 | 2,568 |
| R. 546 | 229 | 775 | | | | | | |

STATEMENT

| No. | Circles and Districts. | Re-vaccination. | | | Percentage of successful cases in which the results were known, | |
|---|---|---|---|---|---|---|
| | | Total. | Successful. | Unknown. | Primary. | Re-vaccination. |
| 1 | 2 | 13 | 14 | 15 | 16 | 17 |
| | SOUTHERN REGISTRATION DISTRICT—*contd.* | | | | | |
| | KANARA DISTRICT— | | | | | |
| 70 | Karwar Town (Municipal) ... ... | 110 | 66 | 5 | 99·67 | 62·86 |
| 71 | Kumtha Town (Local Fund) ... ... | 137 | 50 | 27 | 100·00 | 45·45 |
| 72 | In the 11 Rural circles (Local Fund) ... | 3,661 | 1,542 | 866 | 99·95 | 55·17 |
| | Total ... | 3,908 | 1,658 | 898 | 99·94 | 55·08 |
| | BIJAPUR AGENCY— | | | | | |
| 73 | Jath and Daflapur ... ... ... | 626 | 119 | 284 | 100·00 | 30·36 |
| | DHARWAR AGENCY— | | | | | |
| 74 | Savanur State ... ... ... | 531 | 203 | 97 | 100·00 | 46·77 |
| | TOTAL BY ESTABLISHMENT IN THE SOUTHERN REGISTRATION DISTRICT— | | | | | |
| | Municipal ... ... ... | 2,869 | 1,052 | 329 | 99·91 | 41·81 |
| | Local Funds ... ... ... | 44,950 | 11,240 | 13,211 | 99·89 | 35·41 |
| | Cantonment ... ... ... | 176 | 121 | 2 | 100·00 | 69·54 |
| | Native States ... ... ... | 1,157 | 322 | 331 | 100·00 | 38·98 |
| | Dispensaries ... ... ... | 1,012 | 656 | 28 | ... | 66·67 |
| | Grand Total ... | 50,164 | 13,401 | 13,901 | 99·89 | 36·96 |
| | GUJARAT REGISTRATION DISTRICT. | | | | | |
| | SURAT COLLECTORATE— | | | | | |
| 75 | Surat City (Municipal) ... ... | 55 | 5 | 11 | 99·92 | 11·36 |
| 76 | Rander Town (Local Fund) ... ... | 4 | 2 | 1 | 100·00 | 66·67 |
| 77 | Bulsar do. ( do. ) ... ... | 8 | 2 | 6 | 100·00 | 100·00 |
| 78 | In the 9 Rural circles (Local Fund) ... | 684 | 166 | 270 | 99·69 | 40·09 |
| 79 | Mission Hospital, Bulsar ... ... | 24 | 5 | 3 | 88·89 | 23·81 |
| 80 | Surat Dispensary ... ... ... | ... | ... | ... | ... | ... |
| | Total ... | 775 | 180 | 291 | 99·89 | 37·19 |

No. I—*contd.*

| Persons successfully vaccinated per 1,000 of population. | Percentage of unknown cases to total cases. | | Average annual number of persons successfully vaccinated during previous five years. | | Average annual number of deaths from small-pox during previous five years. | |
|---|---|---|---|---|---|---|
| | Primary. | Re-vaccination. | Number. | Ratio per 1,000. | Number. | Ratio per 1,000. |
| 18 | 19 | 20 | 21 | 22 | 23 | 24 |
| 25·38 | 2·89 | 4·55 | 557 | 38·51 | 9 | 0·62 |
| 20·34 | ·00 | 19·71 | 914 | 63·96 | 2 | 0·14 |
| 29·87 | 1·37 | 23·66 | 13,597 | 36·48 | 109 | 0·29 |
| 29·41 | 1·38 | 22·98 | 15,068 | 37·53 | 120 | 0·30 |
| 26·44 | ·00 | 37·38 | 2,299 | 27·81 | ..... | ..... |
| 63·76 | 3·23 | 18·27 | 877 | 52·11 | ..... | ..... |
| 37·01 | 2·94 | 11·47 | 10,721 | 39·59 | 48 | 0·18 |
| 33·72 | 3·78 | 29·39 | 98,743 | 33·98 | 321 | 0·11 |
| 45·34 | .. ... | 1·14 | 326 | 47·32 | 1 | 0·15 |
| 32·75 | 0·98 | 28·61 | 3,319 | 33·36 | ..... | ..... |
| ..... | ..... | 2·77 | 839 | ..... | ..... | ..... |
| 34·19 | 3·62 | 27·71 | 112,897 | 34·39 | 370 | 0·08 |
| 20·68 | 16·75 | 20·00 | 2,933 | 24·98 | 264 | 2·25 |
| 15·55 | 39·33 | 25·00 | 191 | 18·11 | 20 | 1·90 |
| 21·95 | 8·07 | 75·00 | 427 | 21·54 | 5 | ·25 |
| 27·80 | 11·76 | 39·47 | 14,112 | 26·80 | 111 | ·21 |
| ·00 | ·00 | 12·50 | 14 | ..... | ..... | ..... |
| ..... | ..... | ..... | ..... | ..... | ..... | ..... |
| 26·22 | 12·54 | 37·55 | 17,677 | 26·21 | 400 | ·59 |

STATEMENT

| No. | Circles and Districts. | Population of District according to census of 1921. | Average population per square mile. | Average number of Vaccinators employed throughout the year. |
|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 |
| | GUJARAT REGISTRATION DISTRICT—*contd.* | | | |
| | BROACH COLLECTORATE— | | | |
| 81 | Broach City (Municipal) ... ... | 42,648 | 25,325·71 | 1 |
| 82 | Jambusar Town (Local Fund) ... ... | 10,217 | 18,916·66 | ... |
| 83 | Ankleshwar do. ( do. ) ... ... | 11,762 | 3,078·53 | ... |
| 84 | In the 6 Rural circles (Local Fund) ... | 243,118 | 166·29 | 5 |
| | Total ... | 307,745 | 210 | 6 |
| | KAIRA COLLECTORATE— | | | |
| 85 | Kaira Town (Local Fund)... ... | 8,277 | 29,560·71 | ... |
| 86 | Mehmedabad Town ( do. )... ... | 6,238 | 51,983·33 | ... |
| 87 | Nadiad Town (Municipal) ... ... | 31,939 | 96,784·84 | 1 |
| 88 | Borsad do. ( do. ) ... ... | 12,116 | 63,768·42 | ... |
| 89 | Anand do. ( do. ) ... ... | 11,054 | 10,732·04 | ... |
| 90 | Umreth do. ( do. ) ... ... | 14,024 | 181·88 | ... |
| 91 | Dakore do. ( do. ) ... ... | 7,990 | 1,336·12 | ... |
| 92 | Kapadvanj Town (do. ) ... ... | 17,494 | 64,321·73 | ... |
| 93 | In the 7 Rural circles (Local Fund) ... | 604,550 | 382·60 | 10 |
| | Total ... | 710,982 | 445 | 11 |
| | PANCH MAHALS COLLECTORATE— | | | |
| 94 | Godhra Town (Local Fund) ... ... | 26,979 | 158,900·8 | ... |
| 95 | Dohad do. ( do. ) ... ... | 16,076 | 94,564·71 | ... |
| 96 | In the 5 Rural circles (Local Fund) ... | 331,805 | 206·65 | 7 |
| | Total ... | 374,860 | 233 | 7 |

No. I—*contd.*

| Total number of persons vaccinated. | | | Average number of persons vaccinated by each Vaccinator. | Primary Vaccination. | | | | |
|---|---|---|---|---|---|---|---|---|
| | | | | Total. | Successful. | | | Unknown. |
| | | | | | Under one year. | One and under six years. | Total of all ages. | |
| 6 | | | 7 | 8 | 9 | 10 | 11 | 12 |
| Males. | Females. | Total. | | | | | | |
| P. 734 | 712 | 1,446 | 1,468 | 1,446 | 1,070 | 273 | 1,318 | 126 |
| R. 17 | 5 | 22 | | | | | | |
| P. 136 | 171 | 307 | 309 | 307 | 176 | 99 | 278 | 29 |
| R. 1 | 1 | 2 | | | | | | |
| P. 164 | 143 | 307 | 357 | 307 | 225 | 66 | 292 | 15 |
| R. 23 | 28 | 50 | | | | | | |
| P. 3,995 | 3,848 | 7,843 | 1,605 | 7,843 | 5,446 | 1,595 | 7,054 | 782 |
| R. 142 | 38 | 180 | | | | | | |
| P. 5,029 | 4,874 | 9,903 | 1,693 | 9,903 | 6,917 | 2,003 | 8,942 | 952 |
| R. 182 | 72 | 254 | | | | | | |
| P. 76 | 71 | 147 | 340 | 147 | 91 | 45 | 139 | 8 |
| R. 6 | 187 | 193 | | | | | | |
| P. 114 | 97 | 211 | 217 | 211 | 139 | 64 | 205 | 6 |
| R. 5 | 1 | 6 | | | | | | |
| P. 561 | 440 | 1,001 | 1,019 | 1,001 | 627 | 209 | 842 | 156 |
| R. 14 | 4 | 18 | | | | | | |
| P. 233 | 193 | 426 | 433 | 427 | 302 | 94 | 397 | 29 |
| R. 4 | 3 | 7 | | | | | | |
| P. 157 | 147 | 304 | 347 | 304 | 174 | 109 | 285 | 19 |
| R. 16 | 27 | 43 | | | | | | |
| P. 206 | 194 | 400 | 404 | 400 | 263 | 111 | 377 | 23 |
| R. 3 | 1 | 4 | | | | | | |
| P. 79 | 72 | 151 | 162 | 151 | 101 | 42 | 143 | 8 |
| R. 11 | ..... | 11 | | | | | | |
| P. 219 | 199 | 418 | 420 | 418 | 293 | 110 | 404 | 14 |
| R. ..... | 2 | 2 | | | | | | |
| P. 9,975 | 9,119 | 19,094 | 1,934 | 19,094 | 13,883 | 3,520 | 17,471 | 1,608 |
| R. 205 | 37 | 242 | | | | | | |
| P. 11,620 | 10,532 | 22,152 | 2,062 | 22,153 | 15,873 | 4,304 | 20,263 | 1,871 |
| R. 264 | 262 | 526 | | | | | | |
| P. 498 | 486 | 984 | 998 | 984 | 706 | 179 | 885 | 99 |
| R. 14 | ..... | 14 | | | | | | |
| P. 125 | 120 | 245 | 263 | 245 | 169 | 59 | 228 | 17 |
| R. 18 | ..... | 18 | | | | | | |
| P. 5,515 | 5,461 | 10,976 | 1,584 | 10,976 | 8,092 | 1,832 | 9,930 | 1,035 |
| R. 90 | 21 | 111 | | | | | | |
| P. 6,133 | 6,067 | 12,205 | 1,764 | 12,205 | 8,967 | 2,070 | 11,043 | 1,151 |
| R. 122 | 21 | 143 | | | | | | |

STATEMENT

| No. | Circles and Districts. | Re-vaccination. | | | Percentage of successful cases in which the results were known. | |
|---|---|---|---|---|---|---|
| | | Total. | Successful. | Unknown. | Primary. | Re-vaccination. |
| 1 | 2 | 13 | 14 | 15 | 16 | 17 |
| | GUJARAT REGISTRATION DISTRICT—*contd.* | | | | | |
| | BROACH COLLECTORATE— | | | | | |
| 81 | Broach City (Municipal) ... ... | 22 | 6 | 2 | 99·85 | 30·00 |
| 82 | Jambusar Town (Local Fund) ... ... | 2 | ... | 1 | 100·00 | ·00 |
| 83 | Ankleshwar do. ( do. ) ... ... | 50 | 21 | 2 | 100·00 | 43·75 |
| 84 | In the 6 Rural circles (Local Fund) ... | 180 | 76 | 32 | 99·90 | 51·35 |
| | Total ... | 254 | 103 | 37 | 99·90 | 47·47 |
| | KAIRA COLLECTORATE— | | | | | |
| 85 | Kaira Town (Local Fund) ... | 193 | 21 | 9 | 100·00 | 11·54 |
| 86 | Mehmedabad Town ( do. ) ... | 6 | ... | 4 | 100·00 | ·00 |
| 87 | Nadiad Town ( Municipal ) ... ... | 18 | 2 | 6 | 99·65 | 16·67 |
| 88 | Borsad do. ( do. ) ... ... | 7 | 3 | 1 | 99·75 | 50·00 |
| 89 | Anand do. ( do. ) ... ... | 43 | 8 | ... | 100·00 | 18·60 |
| 90 | Umreth do. ( do. ) ... ... | 4 | ... | 2 | 100·00 | ·00 |
| 91 | Dakore do. ( do. ) ... ... | 11 | 4 | 2 | 100·00 | 44·44 |
| 92 | Kapadvanj Town ( do. ) ... ... | 2 | ... | 2 | 100·00 | ·00 |
| 93 | In the 7 Rural circles (Local Fund) ... | 242 | 107 | 39 | 99·91 | 52·71 |
| | Total ... | 526 | 145 | 65 | 99·91 | 31·45 |
| | PANCH MAHALS COLLECTORATE— | | | | | |
| 94 | Godhra Town (Local Fund) ... ... | 14 | 6 | 4 | 100·00 | 60·00 |
| 95 | Dohad do. ( do. ) ... ... | 18 | 2 | 6 | 100·00 | 16·67 |
| 96 | In the 5 Rural circles (Local Fund) ... | 111 | 38 | 28 | 99·80 | 45·78 |
| | Total ... | 143 | 46 | 38 | 99·90 | 43·80 |

No. 1—*contd.*

| Persons successfully vaccinated per 1,000 of population. | Percentage of unknown cases to total cases. | | Average annual number of persons successfully vaccinated during previous five years. | | Average annual number of deaths from small-pox during previous five years. | |
|---|---|---|---|---|---|---|
| | Primary. | Re-vaccination. | Number. | Ratio per 1,000. | Number. | Ratio per 1,000. |
| 18 | 19 | 20 | 21 | 22 | 23 | 24 |
| 31·05 | 8·71 | 9·09 | 1,239 | 29·05 | 2 | ·05 |
| 27·29 | 9·45 | 50·00 | 244 | 23·88 | ... | ... |
| 26·61 | 4·88 | 4·00 | 331 | 28·14 | ... | ... |
| 29·38 | 9·97 | 17·78 | 6,679 | 27·47 | 89 | ·37 |
| 29·39 | 9·61 | 14·57 | 8,493 | 27·60 | 91 | ·30 |
| 19·33 | 5·44 | 4·66 | 246 | 29·72 | ... | ..... |
| 32·26 | 2·84 | 66·67 | 187 | 29·98 | 1 | ·16 |
| 26·43 | 15·58 | 33·33 | 835 | 26·14 | 21 | ·66 |
| 33·01 | 6·79 | 14·29 | 417 | 34·42 | 1 | ·08 |
| 26·59 | 6·25 | ·00 | 330 | 29·85 | 3 | ·27 |
| 26·88 | 5·75 | 50·00 | 409 | 29·16 | 2 | ·14 |
| 18·39 | 5·29 | 18·18 | 107 | 13·40 | 5 | ·63 |
| 27·31 | 3·35 | 100·00 | 427 | 28·86 | 10 | ·68 |
| 29·03 | 8·42 | 16·12 | 17,369 | 28·73 | 29 | ·05 |
| 28·79 | 8·15 | 12·36 | 20,327 | 28·59 | 72 | ·10 |
| 33·02 | 10·06 | 28·57 | 301 | 29·59 | 5 | ·19 |
| 14·31 | 6·94 | 33·33 | 361 | 22·46 | 1 | ·06 |
| 30·04 | 9·48 | 25·23 | 9,783 | 29·48 | 24 | ·07 |
| 29·33 | 9·43 | 25·57 | 10,945 | 29·20 | 30 | ·08 |

STATEMENT

| No. | Circles and Districts. | Population of District according to census of 1921. | Average population per square mile. | Average number of Vaccinators employed throughout the year. |
|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 |
| | GUJARAT REGISTRATION DISTRICT—*concld.* | | | |
| | AHMEDABAD DISTRICT— | | | |
| 97 | Ahmedabad City (Municipal) ... ... | 270,775 | 41,657·69 | 4 |
| 98 | Dhandhuka Town (Local Fund)... ... | 8,056 | 40,280·00 | ..... |
| 99 | Viramgam do. ( do. )... ... | 26,262 | 43,053·46 | ..... |
| 100 | Dholka do. ( do. )... ... | 12,513 | 16,684·00 | ..... |
| 101 | Ahmedabad Cantonment ... ... | 3,232 | 1,103·07 | ..... |
| 102 | In the 8 Rural circles (Local Fund) ... | 570,073 | 149·61 | 12 |
| 103 | Ahmedabad Central Prison ... ... | ..... | ..... | ..... |
| 104 | Sabarmati Railway Dispensary ... ... | ..... | ..... | ..... |
| 105 | Sadar Bazar Dispensary ... ... | ..... | ..... | ..... |
| | Total ... | 890,911 | 238 | 16 |
| | NATIVE STATES— | | | |
| 106 | Rewa Kantha Agency ... ... ... | 753,059 | 152 | 16 |
| 107 | Mahi Kantha Agency ... ... ... | 224,127 | 138 | 4 |
| 108 | Dangs (Local Fund) ... ... ... | 24,481 | 25 | 1 |
| 109 | Jambughoda (Local Fund) ... ... | 9,540 | 65·20 | ..... |
| 110 | Sadra Dispensary ... ... ... | ..... | ..... | ..... |
| | TOTAL BY ESTABLISHMENT IN THE GUJARAT REGISTRATION DISTRICT. | | | |
| | Municipal ... ... ... | 679,523 | 59,037·62 | 8 |
| | Local Fund ... ... ... | 2,310,115 | 204·23 | 46 |
| | Native States ... ... ... | 977,185 | 148 | 20 |
| | Cantonment ... ... ... | 3,232 | 1,103·07 | ..... |
| | Dispensaries ... ... ... | ..... | ..... | ..... |
| | Total ... | 3,970,055 | 222 | 74 |

No. I—*contd.*

| Total number of persons vaccinated. | | | Average number of persons vaccinated by each Vaccinator. | Primary Vaccination. | | | | |
|---|---|---|---|---|---|---|---|---|
| | | | | Total. | Successful. | | | Unknown. |
| | | | | | Under one year. | One and under six years. | Total of all ages. | |
| 6 | | | 7 | 8 | 9 | 10 | 11 | 12 |
| Males. | Females. | Total. | | | | | | |
| P. 4,574 | 4,429 | 9,003 | 2,287 | 9,010 | 7,704 | 1,001 | 8,710 | 290 |
| R. 50 | 97 | 147 | | | | | | |
| P. 218 | 178 | 396 | 455 | 396 | 206 | 144 | 355 | 39 |
| R. 50 | 9 | 59 | | | | | | |
| P. 300 | 250 | 550 | 553 | 550 | 265 | 239 | 508 | 42 |
| R. 3 | ..... | 3 | | | | | | |
| P. 200 | 203 | 403 | 430 | 403 | 297 | 73 | 370 | 33 |
| R. 23 | 4 | 27 | | | | | | |
| P. ... | ..... | ... | ... | ... | ... | ... | ... | ... |
| R. ... | ..... | ... | | | | | | |
| P. 8,617 | 8,274 | 16,891 | 1,463 | 16,892 | 11,983 | 2,977 | 14,926 | 1,869 |
| R. 485 | 186 | 671 | | | | | | |
| P. 2,009 | 88 | 2,097 | 2,097 | ... | ... | ... | ... | ... |
| R. ... | ..... | ... | | | | | | |
| P. 58 | 37 | 95 | 95 | 95 | 37 | 42 | 95 | ... |
| R. ... | ..... | ... | | | | | | |
| P. ... | ..... | ... | ... | ... | ... | ... | ... | ... |
| R. ... | ..... | ... | | | | | | |
| P. 13,967 | 13,371 | 27,338 | 1,896 | 27,346 | 20,492 | 4,476 | 25,024 | 2,273 |
| R. 2,620 | 384 | 3,004 | | | | | | |
| P. 13,347 | 12,645 | 25,992 | 1,707 | 25,992 | 21,686 | 2,488 | 24,221 | 1,760 |
| R. 988 | 340 | 1,328 | | | | | | |
| P. 3,361 | 3,248 | 6,609 | 1,687 | 6,609 | 5,222 | 814 | 6,038 | 563 |
| R. 83 | 56 | 139 | | | | | | |
| P. 479 | 473 | 952 | 955 | 952 | 496 | 383 | 894 | 58 |
| R. 3 | ... | 3 | | | | | | |
| P. 169 | 183 | 352 | 365 | 352 | 261 | 63 | 324 | 27 |
| R. 10 | 3 | 13 | | | | | | |
| P. 68 | 47 | 115 | 115 | 115 | 75 | 34 | 115 | ... |
| R. ... | ..... | ... | | | | | | |
| P. 7,384 | 6,986 | 14,370 | 1,826 | 14,377 | 10,878 | 2,389 | 13,293 | 1,067 |
| R. 125 | 117 | 242 | | | | | | |
| P. 40,193 | 38,320 | 78,513 | 1,758 | 78,515 | 54,765 | 15,611 | 70,592 | 7,833 |
| R. 1,606 | 749 | 2,355 | | | | | | |
| P. 16,708 | 15,893 | 32,601 | 1,703 | 32,601 | 26,908 | 3,302 | 30,259 | 2,323 |
| R. 1,071 | 396 | 1,467 | | | | | | |
| P. ... | ... | ... | ... | ... | ... | ... | ... | ... |
| R. ... | ... | ... | | | | | | |
| P. 130 | 89 | 219 | ... | 219 | 116 | 80 | 218 | ... |
| R. 2,016 | 105 | 2,121 | | | | | | |
| P. 64,415 | 61,288 | 125,703 | 1,782 | 125,712 | 92,667 | 21,382 | 114,362 | 11,223 |
| R. 4,618 | 1,367 | 6,185 | | | | | | |

STATEMENT

| No. | Circles and Districts. | Re-vaccination. | | | Percentage of successful cases in which the results were known. | |
|---|---|---|---|---|---|---|
| | | Total. | Successful. | Unknown. | Primary. | Re-vaccination. |
| 1 | 2 | 13 | 14 | 15 | 16 | 17 |
| | GUJARAT REGISTRATION DISTRICT—*concld.* | | | | | |
| | AHMEDABAD DISTRICT— | | | | | |
| 97 | Ahmedabad City (Municipal) ... ... | 147 | 35 | 89 | 99·89 | 32·41 |
| 98 | Dhandhuka Town (Local Fund)... ... | 59 | 2 | 24 | 99·44 | 5·71 |
| 99 | Viramgam do. ( do. )... ... | 3 | 1 | 2 | 100·00 | 100·00 |
| 100 | Dholka do. ( do. )... ... | 27 | 5 | 5 | 100·00 | 22·73 |
| 101 | Ahmedabad Cantonment ... ... | ... | ... | ... | ·00 | ·00 |
| 102 | In the 8 Rural circles (Local Fund) ... | 671 | 172 | 205 | 99·75 | 36·91 |
| 103 | Ahmedabad Central Prison ... ... | 2,097 | 2,097 | ... | ... | ·00 |
| 104 | Sabarmati Railway Dispensary ... ... | ... | ... | ... | 100·00 | ·00 |
| 105 | Sadar Bazar Dispensary ... ... | ... | ... | ... | ... | ... |
| | Total ... | 3,004 | 2,312 | 275 | 99·80 | 84·72 |
| | NATIVE STATES— | | | | | |
| 106 | Rewa Kantha Agency ... ... | 1,328 | 144 | 815 | 99·95 | 14·22 |
| 107 | Mahi Kantha Agency ... ... | 183 | 23 | 11 | 99·87 | 17·97 |
| 108 | Dangs (Local Fund) ... ... | 3 | ... | 1 | 100·00 | ·00 |
| 109 | Jambughoda (Local Fund) ... ... | 18 | 2 | 7 | 99·69 | 33·33 |
| 110 | Sadra Dispensary ... ... ... | ... | ... | ... | 100·00 | ·00 |
| | TOTAL BY ESTABLISHMENT IN THE GUJARAT REGISTRATION DISTRICT. | | | | | |
| | Municipal ... ... | 242 | 48 | 58 | 99·87 | 26·09 |
| | Local Fund ... ... | 2,355 | 698 | 658 | 99·87 | 37·49 |
| | Native States ... ... | 1,467 | 167 | 326 | 99·94 | 14·64 |
| | Cantonment ... ... | ... | ... | ... | ... | ... |
| | Dispensaries ... ... ... | 2,121 | 2,102 | 3 | 99·54 | 99·24 |
| | Total ... | 6,185 | 2,955 | 1,040 | 99·89 | 57·48 |

No. I—*contd.*

| Persons successfully vaccinated per 1,000 of population. | Percentage of unknown cases to total cases. | | Average annual number of persons successfully vaccinated during previous five years. | | Average annual number of deaths from small-pox during previous five years. | |
|---|---|---|---|---|---|---|
| | Primary. | Re-vaccination. | Number. | Ratio per 1,000. | Number. | Ratio per 1,000. |
| 18 | 19 | 20 | 21 | 22 | 23 | 24 |
| 32·29 | 3·22 | 26·53 | 8,363 | 30·89 | 187 | ·69 |
| 44·31 | 9·85 | 40·68 | 251 | 31·16 | 5 | ·62 |
| 19·38 | 7·64 | 66·67 | 588 | 22·39 | 18 | ·69 |
| 29·97 | 7·67 | 18·52 | 390 | 31·17 | ..... | ..... |
| ·00 | ·00 | ·00 | 14 | 4·33 | ..... | ..... |
| 26·59 | 11·06 | 30·55 | 15,525 | 27·23 | 48 | ·08 |
| 100·00 | ·00 | ·00 | 2,093 | ..... | ..... | ..... |
| ·00 | ·00 | ·00 | 38 | ..... | ..... | ..... |
| ..... | ..... | ..... | ..... | ..... | ..... | ..... |
| 30·69 | 8·31 | 9·15 | 27,262 | 30·60 | 258 | ·28 |
| 32·36 | 6·77 | 23·72 | 22,379 | 29·72 | ..... | ..... |
| 27·04 | 8·52 | 7·91 | 5,257 | 23·46 | ..... | ..... |
| 36·52 | 6·09 | 38·33 | 902 | 36·84 | ..... | ..... |
| 34·18 | 7·67 | 53·85 | 270 | 28·30 | ..... | ..... |
| ·00 | ·00 | ·00 | 29 | ..... | ..... | ..... |
| 19·64 | 7·42 | 23·97 | 13,370 | 19·67 | 474 | ·70 |
| 30·83 | 9·98 | 27·73 | 70,347 | 30·45 | 377 | ·16 |
| 31·14 | 7·18 | 22·22 | 27,636 | 28·28 | ..... | ..... |
| ... | ..... | ..... | 14 | 4·33 | ..... | ..... |
| ·00 | ·00 | ·14 | 2,174 | ..... | ..... | ..... |
| 29·55 | 8·92 | 16·81 | 113,541 | 28·60 | 851 | ·21 |

STATEMENT

| No. | Circles and Districts. | Population of District according to census of 1921. | Average population per square mile. | Average number of Vaccinators employed throughout the year. |
|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 |
| | SIND REGISTRATION DISTRICT. | | | |
| | KARACHI COLLECTORATE— | | | |
| 111 | Karachi Town (Municipal) ... ... | 216,883 | 2,363 | 2 |
| 112 | Tatta do. ( do. ) ... ... | 8,470 | ..... | ..... |
| 113 | In the 11 Rural circles (Local Fund) ... | 316,712 | 48 | 11 |
| 114 | Karachi Convict Gang ... ... | ..... | ..... | ..... |
| | Total ... | 542,065 | 47 | 13 |
| | HYDERABAD COLLECTORATE— | | | |
| 115 | Hyderabad Town (Municipal) ... ... | 73,951 | 4,167 | 1 |
| 116 | Do. Cantonment ... ... | 7,887 | ..... | 1 |
| 117 | In the 7 Rural circles (Local Fund) ... | 491,612 | 128 | 10 |
| 118 | Hyderabad Central Prison ... ... | ..... | ..... | M. O. |
| | Total ... | 573,450 | 128 | 12 |
| | NAWABSHAH COLLECTORATE— | | | |
| 119 | In the 7 Rural circles (Local Fund) ... | 418,660 | 107 | 9 |
| | Total ... | 418,660 | 107 | 9 |
| | THAR AND PARKAR COLLECTORATE— | | | |
| 120 | Umarkot Town (Local Fund) ... ... | 4,199 | ..... | 1 |
| 121 | In the 11 Rural circles (Local Fund) ... | 392,132 | 29 | 15 |
| | Total ... | 396,331 | 29 | 16 |
| | LARKANA COLLECTORATE— | | | |
| 122 | Larkana Town (Municipal) ... ... | 17,723 | 8,023 | 1 |
| 123 | In the 11 Rural circles (Local Fund) ... | 580,237 | 115 | 11 |
| | Total ... | 597,960 | 118 | 12 |

No. I—*contd.*

| Total number of persons vaccinated. | | | Average number of persons vaccinated by each Vaccinator. | Primary Vaccination. | | | | |
|---|---|---|---|---|---|---|---|---|
| | | | | Total. | Successful. | | | Unknown. |
| | | | | | Under one year. | One and under six years. | Total of all ages. | |
| 6 | | | 7 | 8 | 9 | 10 | 11 | 12 |
| Males. | Females. | Total. | | | | | | |
| P. 4,502 | 4,124 | 8,626 | 11,001 | 8,631 | 5,146 | 1,459 | 6,913 | 1,707 |
| R. 9,987 | 3,390 | 13,377 | | | | | | |
| P. 53 | 40 | 93 | ..... | 28 | 61 | 31 | 93 | ... |
| R. ... | ... | ... | | | | | | |
| P. 4,465 | 3,713 | 8,178 | ..... | 8,182 | 3,307 | 3,959 | 7,604 | 566 |
| R. 542 | 100 | 742 | | | | | | |
| P. 230 | 76 | 306 | 644 | 306 | 27 | 33 | 223 | 74 |
| R. 212 | 126 | 338 | | | | | | |
| P. 9,250 | 7,955 | 17,208 | 2,435 | 17,305 | 8,541 | 5,482 | 14,833 | 2,347 |
| R. 10,841 | 3,616 | 14,457 | | | | | | |
| P. 1,126 | 1,028 | 2,154 | 2,171 | 2,154 | 761 | 1,370 | 2,148 | 6 |
| R. 13 | 4 | 17 | | | | | | |
| P. 46 | 33 | 79 | 90 | 79 | 32 | 41 | 79 | ... |
| R. 11 | ... | 11 | | | | | | |
| P. 6,885 | 5,908 | 12,793 | 1,279 | 12,798 | 5,941 | 5,607 | 12,063 | 720 |
| R. 347 | 111 | 458 | | | | | | |
| P. 238 | 31 | 269 | 1,770 | 269 | 18 | 35 | 245 | 4 |
| R. 1,463 | 33 | 1,501 | | | | | | |
| P. 8,295 | 7,000 | 15,295 | 1,441 | 15,300 | 6,752 | 7,053 | 14,535 | 430 |
| R. 1,339 | 148 | 1,997 | | | | | | |
| P. 6,825 | 5,790 | 12,615 | 1,498 | 12,616 | 7,657 | 4,029 | 11,380 | 768 |
| R. 347 | 120 | 467 | | | | | | |
| P. 6,825 | 5,790 | 12,615 | 1,498 | 12,616 | 7,657 | 4,029 | 11,380 | 768 |
| R. 347 | 120 | 467 | | | | | | |
| P. 26 | 28 | 54 | ..... | 54 | 42 | 8 | 50 | 4 |
| R. ... | 1 | 1 | | | | | | |
| P. 6,383 | 5,714 | 12,097 | 885 | 12,100 | 6,879 | 4,462 | 11,583 | 512 |
| R. 755 | 369 | 424 | | | | | | |
| P. 6,409 | 5,742 | 12,151 | 885 | 12,154 | 6,921 | 4,477 | 11,633 | 516 |
| R. 755 | 370 | 1,125 | | | | | | |
| P. 258 | 231 | 489 | 491 | 489 | 42 | 428 | 470 | 19 |
| R. 1 | 1 | 2 | | | | | | |
| P. 8,745 | 7,434 | 16,179 | 1,586 | 16,179 | 10,202 | 4,720 | 15,245 | 902 |
| R. 1,036 | 288 | 1,264 | | | | | | |
| P. 9,003 | 7,665 | 16,668 | 1,495 | 16,668 | 10,244 | 5,148 | 15,715 | 921 |
| R. 1,037 | 229 | 1,286 | | | | | | |

STATEMENT

| No. | Circles and Districts. | Re-vaccination. | | | Percentage of successful cases in which the results were known. | |
|---|---|---|---|---|---|---|
| | | Total. | Successful. | Unknown. | Primary. | Re-vaccination. |
| 1 | 2 | 13 | 14 | 15 | 16 | 17 |
| | SIND REGISTRATION DISTRICT. | | | | | |
| | KARACHI COLLECTORATE— | | | | | |
| 111 | Karachi Town (Municipal) ... ... | 13,317 | 26 | 13,332 | 99·84 | 47·27 |
| 112 | Tatta do. ( do. ) ... ... | ... | ... | ... | 100·00 | ... |
| 113 | In the 11 Rural circles (Local Fund) ... | 742 | 225 | 170 | 99·84 | 89·34 |
| 114 | Karachi Convict Gang ... ... | 338 | 21 | 316 | 96·12 | 95·45 |
| | Total ... | 14,457 | 272 | 13,808 | 99·16 | 41·91 |
| | HYDERABAD COLLECTORATE— | | | | | |
| 115 | Hyderabad Town (Municipal) ... ... | 17 | 7 | 7 | 100·00 | 70·00 |
| 116 | Do. Cantonment ... ... | 11 | 10 | 1 | 100·00 | 100·00 |
| 117 | In the 7 Rural circles (Local Fund) ... | 463 | 96 | 178 | 34·28 | 34·28 |
| 118 | Hyderabad Central Prison ... ... | 1,501 | 769 | 38 | 92·45 | 52·38 |
| | Total ... | 1,987 | 882 | 219 | 97·75 | 49·89 |
| | NAWABSHAH COLLECTORATE— | | | | | |
| 119 | In the 7 Rural circles (Local Fund) ... | 468 | 101 | 107 | 99·85 | 27·98 |
| | Total ... | 468 | 101 | 107 | 99·85 | 27·98 |
| | THAR AND PARKAR COLLECTORATE— | | | | | |
| 120 | Umarkot Town (Local Fund) ... ... | 1 | 1 | ... | 100·00 | 5·14 |
| 121 | In the 11 Rural circles (Local Fund) ... | 1,124 | 136 | 287 | 99·95 | 16·25 |
| | Total ... | 1,125 | 137 | 287 | 99·96 | 16·35 |
| | LARKANA COLLECTORATE— | | | | | |
| 122 | Larkana Town (Municipal) ... ... | 2 | ... | 1 | 100·00 | ·00 |
| 123 | In the 11 Rural circles (Local Fund) ... | 1,264 | 293 | 304 | 99·79 | 30·52 |
| | Total ... | 1,266 | 293 | 305 | 99·80 | 30·49 |

No. I—*contd.*

| Persons successfully vaccinated per 1,000 of population. | Percentage of unknown cases to total cases. | | Average annual number of persons successfully vaccinated during previous five years. | | Average annual number of deaths from small-pox during previous five years. | |
|---|---|---|---|---|---|---|
| | Primary. | Re-vaccination. | Number. | Ratio per 1,000. | Number. | Ratio per 1,000. |
| 18 | 19 | 20 | 21 | 22 | 23 | 24 |
| 32·00 | 19·77 | 99·58 | 6,818 | 31·44 | 62 | ·29 |
| 10·93 | ·00 | ..... | 130 | 15·35 | 3 | ·35 |
| 24·71 | 6·92 | 22·91 | 7,053 | 22·27 | 70 | ·22 |
| ..... | 24·18 | 93·49 | ..... | ..... | ..... | ..... |
| 27·86 | 13·57 | 95·51 | 14,002 | 25·83 | 134 | ·25 |
| 29·14 | ·28 | 41·17 | 2,194 | 29·67 | 82 | 1·11 |
| 11·23 | ·00 | 9·09 | ..... | ..... | ..... | ..... |
| 24·73 | 5·63 | 38·86 | 10,974 | 22·32 | 21 | ·04 |
| ..... | 1·49 | 21·98 | ..... | ..... | ..... | ..... |
| 26·88 | 2·81 | 11·02 | 13,173 | 22·97 | 103 | ·18 |
| 28·50 | 6·09 | 22·87 | 10,990 | 26·25 | 81 | ·19 |
| 28·50 | 6·09 | 22·87 | 10,990 | 26·25 | 81 | ·19 |
| 47·06 | 4·19 | 46·58 | 119 | 28·34 | 1 | ·24 |
| 29·88 | 4·23 | 25·53 | 10,809 | 27·56 | 80 | ·24 |
| 29·69 | 4·24 | 25·51 | 10,928 | 27·57 | 81 | ·20 |
| 26·52 | 3·88 | 50·00 | 458 | 25·84 | 4 | ·23 |
| 26·78 | 5·57 | 24·05 | 14,704 | 25·34 | 112 | ·19 |
| 26·77 | 5·52 | 24·07 | 19,162 | 32·05 | 116 | ·19 |

STATEMENT

| No. | Circles and Districts. | Population of District according to census of 1921. | Average population per square mile. | Average number of Vaccinators employed throughout the year. |
|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 |
| | SIND REGISTRATION DISTRICT—*contd.* | | | |
| | SUKKUR COLLECTORATE— | | | |
| 124 | Sukkur Town (Municipal) ... ... | 42,759 | 11,639 | 1 |
| 125 | Shikarpur do. ( do. ) ... ... | 55,503 | 5,994 | 1 |
| 126 | Rohri do. ( do. ) ... ... | 11,378 | ..... | 1 |
| 127 | In the 8 Rural circles (Local Fund) ... | 400,652 | 71 | 8 |
| 128 | Sukkur Prison ... ... ... | ..... | ..... | ..... |
| | Total ... | 510,292 | 91 | 11 |
| | UPPER SIND FRONTIER— | | | |
| 129 | Jacobabad Town (Municipal) ... ... | 10,583 | ..... | 1 |
| 130 | In the 5 Rural circles (Local Fund) ... | 230,036 | 86 | 5 |
| | Total ... | 240,619 | 90 | 6 |
| | NATIVE STATES— | | | |
| 131 | Khairpur State ... | 193,131 | ..... | 6 |
| | Total ... | 193,131 | ..... | 6 |
| | TOTAL BY ESTABLISHMENT IN THE SIND REGISTRATION DISTRICT— | | | |
| | Municipal ... ... ... | 437,250 | 3,761 | 8 |
| | Local Fund ... ... ... | 2,834,240 | 61 | 68 |
| | Native States ... ... ... | 193,131 | ..... | 6 |
| | Cantonment ... ... ... | 7,887 | ..... | 1 |
| | Dispensaries ... ... ... | ..... | ..... | ..... |
| | Total ... | 3,472,508 | 75 | 83 |

No. I—*contd.*

| Total number of persons vaccinated. | | | | Average number of persons vaccinated by each Vaccinator. | Primary Vaccination. | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | Total. | Successful. | | | Unknown. |
| | | | | | | Under one year. | One and under six years. | Total of all ages. | |
| Males. | | Females. | Total. | | | | | | |
| 6 | | | | 7 | 8 | 9 | 10 | 11 | 12 |
| P. | 705 | 556 | 1,261 | 1,661 | 1,262 | 753 | 444 | 1,921 | 33 |
| R. | 377 | 23 | 400 | | | | | | |
| P. | 727 | 690 | 1,417 | 1,432 | 1,417 | 1,031 | 309 | 1,345 | 72 |
| R. | 10 | 5 | 15 | | | | | | |
| P. | 154 | 147 | 301 | 312 | 301 | 185 | 111 | 296 | 5 |
| R. | 7 | 4 | 11 | | | | | | |
| P. | 7,132 | 6,702 | 13,834 | 1,918 | 13,835 | 10,015 | 2,585 | 12,744 | 1,086 |
| R. | 1,309 | 204 | 1,513 | | | | | | |
| P. | 277 | 2 | 279 | 379 | 279 | 3 | 3 | 268 | 4 |
| R. | 100 | ... | 100 | | | | | | |
| P. | 8,995 | 8,097 | 17,092 | 1,739 | 17,094 | 11,987 | 3,452 | 15,874 | 1,206 |
| R. | 1,803 | 236 | 2,039 | | | | | | |
| P. | 179 | 151 | 330 | 438 | 330 | 237 | 76 | 315 | 15 |
| R. | 906 | 2 | 108 | | | | | | |
| P. | 4,376 | 4,040 | 8,336 | 1,750 | 8,397 | 5,419 | 2,501 | 7,992 | 400 |
| R. | 212 | 144 | 356 | | | | | | |
| P. | 4,535 | 4,191 | 8,726 | 1,531 | 8,727 | 5,656 | 2,577 | 8,307 | 415 |
| R. | 318 | 146 | 464 | | | | | | |
| P. | 2,855 | 2,388 | 5,243 | 883 | 5,244 | 3,860 | 1,118 | 5,000 | 243 |
| R. | 38 | 18 | 56 | | | | | | |
| P. | 2,855 | 2,388 | 5,243 | 883 | 5,244 | 3,860 | 1,118 | 5,000 | 243 |
| R. | 38 | 18 | 56 | | | | | | |
| P. | 7,730 | 6,995 | 14,725 | 3,582 | 14,731 | 8,258 | 4,236 | 12,851 | 1,867 |
| R. | 10,501 | 3,430 | 13,931 | | | | | | |
| P. | 44,791 | 39,301 | 84,092 | 1,324 | 84,107 | 49,420 | 27,870 | 79,061 | 4,954 |
| R. | 4,648 | 1,276 | 5,924 | | | | | | |
| P. | 2,855 | 2,388 | 5,243 | 883 | 5,244 | 3,860 | 1,118 | 5,000 | 243 |
| R. | 38 | 18 | 56 | | | | | | |
| P. | 46 | 33 | 79 | 90 | 79 | 32 | 41 | 79 | ... |
| R. | 11 | ..... | 11 | | | | | | |
| P. | 899 | 212 | 1,111 | ..... | 1,111 | 124 | 203 | 993 | 82 |
| R. | 2,170 | 289 | 2,459 | | | | | | |
| P. | 56,321 | 48,929 | 105,250 | 1,513 | 105,272 | 61,674 | 33,468 | 97,984 | 7,146 |
| R. | 17,368 | 5,013 | 23,381 | | | | | | |

STATEMENT

| No. | Circles and Districts | Re-vaccination. | | | Percentage of successful cases in which the results were known. | |
|---|---|---|---|---|---|---|
| | | Total. | Successful. | Unknown. | Primary. | Re-vaccination. |
| 1 | 2 | 13 | 14 | 15 | 16 | 17 |
| | SIND REGISTRATION DISTRICT—*contd.* | | | | | |
| | SUKKUR COLLECTORATE— | | | | | |
| 124 | Sukkur Town (Municipal) ... ... | 409 | 64 | 60 | 99·83 | 18·82 |
| 125 | Shikarpur do. ( do. ) ... ... | 15 | 4 | 9 | 100·00 | 66·66 |
| 126 | Rohri do. ( do. ) ... ... | 11 | 2 | 4 | 100·00 | 28·57 |
| 127 | In the 8 Rural circles (Local Fund) ... | 1,513 | 120 | 517 | 99·96 | 12·04 |
| 128 | Sukkur Prison ... ... ... | 100 | 30 | ... | 97·73 | 30·00 |
| | Total ... | 2,039 | 220 | 590 | 99·91 | 15·18 |
| | UPPER SIND FRONTIER— | | | | | |
| 129 | Jacobabad Town (Municipal) ... ... | 108 | 9 | 17 | 100·00 | 9·89 |
| 130 | In the 5 Rural circles (Local Fund) ... | 356 | 60 | 143 | 99·93 | 28·17 |
| | Total ... | 464 | 60 | 160 | 99·94 | 22·70 |
| | NATIVE STATES— | | | | | |
| 131 | Khairpur State ... ... ... | 56 | 25 | 22 | 99·96 | 73·52 |
| | Total ... | 56 | 25 | 23 | 99·96 | 73·52 |
| | TOTAL BY ESTABLISHMENT IN THE SIND REGISTRATION DISTRICT— | | | | | |
| | Municipal ... ... ... | 13,931 | 113 | 13,420 | 99·90 | 22·11 |
| | Local Fund ... ... ... | 5,925 | 1,031 | 1,706 | 99·88 | 24·44 |
| | Native States ... ... ... | 56 | 25 | 22 | 99·96 | 73·52 |
| | Cantonment ... ... ... | 11 | 10 | 1 | 100·00 | 100·00 |
| | Dispensaries ... ... ... | 2,459 | 1,340 | 349 | 96·50 | 63·51 |
| | Total ... | 22,382 | 2,519 | 15,498 | 99·85 | 36·59 |

No. I—*contd.*

| Persons successfully vaccinated per 1,000 of population. | Percentage of unknown cases to total cases. | | Average annual number of persons successfully vaccinated during previous five years. | | Average annual number of deaths from small-pox during previous five years. | |
|---|---|---|---|---|---|---|
| | Primary. | Re-vaccination. | Number. | Ratio per 1,000. | Number. | Ratio per 1,000. |
| 18 | 19 | 20 | 21 | 22 | 23 | 24 |
| 30·05 | 3·09 | 15·00 | 952 | 22·26 | 10 | ·23 |
| 24·32 | 5·08 | 60·00 | 1,380 | 24·86 | 41 | ·74 |
| 26·19 | 1·66 | 36·36 | 281 | 24·70 | 2 | ·18 |
| 32·11 | 7·85 | 34·16 | 12,232 | 30·53 | 43 | ·11 |
| ..... | 1·43 | ..... | ..... | ..... | ..... | ..... |
| 31·53 | 7·05 | 28·94 | 14,760 | 28·92 | 97 | ·19 |
| 30·61 | 4·54 | 15·74 | 313 | 29·58 | 7 | ·66 |
| 35·00 | 4·77 | 40·17 | 7,406 | 32·19 | 11 | ·05 |
| 34·81 | 4·75 | 34·48 | 7,519 | 31·25 | 17 | ·71 |
| 26·02 | 4·63 | 39·28 | 5,265 | 27·26 | ... | ... |
| 26·02 | 4·63 | 39·28 | 5,265 | 27·26 | ... | ... |
| 29·65 | 12·67 | 96·38 | 12,427 | 28·29 | 226 | ·52 |
| 28·26 | 5·89 | 17·91 | 72,668 | 25·64 | 439 | ·15 |
| 26·02 | 4·63 | 39·28 | 5,265 | 27·26 | ..... | ..... |
| 11·28 | ..... | 9·09 | ..... | ..... | ..... | ..... |
| ..... | 7·37 | 14·18 | ..... | ..... | ..... | ..... |
| 28·27 | 6·78 | 69·24 | 91,995 | 26·49 | 666 | ·19 |

STATEMENT

| No. | Circles and Districts. | Population of District according to census of 1921. | Average population per square mile. | Average number of vaccinators employed throughout the year. |
|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 |
| | ADEN. | | | |
| 132 | Aden (Municipal) ... ... | 56,500 | 686 | 5 |
| | TOTAL BY ESTABLISHMENTS. | | | |
| | Municipal ... ... | 3,347,080 | ... | 38 |
| | Local Fund ... ... | 15,095,425 | 129 | 343 |
| | Cantonments ... ... | 95,759 | ... | 2 |
| | Native States ... ... | 1,314,397 | ... | 1 S.A.S.<br>31 |
| | Dispensaries ... ... | ... | ... | ... |
| | In the British Territory ... ... | 19,438,264 | ... | 403<br>1 S.A.S. |
| | In the Native States ... ... | 1,314,397 | ... | 31 |
| | Grand Total ... | 20,752,361 | ... | 434<br>1 S.A.S. |

*Sum*

| | Total number of persons vaccinated. | | Total number of operations performed. | | Percentage of successful cases in which results were known. | |
|---|---|---|---|---|---|---|
| | Primary. | Re-vaccination. | Primary. | Re-vaccination. | Primary. | Re-vaccination. |
| By Special Staff (Statement I). | 651,545 | 136,497 | 651,585 | 136,499 | 99·71 | 61·15 |
| By Dispensary Staff (Statement I) | 1,348 | 7,773 | 1,348 | 7,773 | 97·03 | 65·71 |
| By other Agencies, if any ... | ... | ... | ... | ... | ... | ... |
| Total ... | 652,893 | 144,270 | 652,933 | 144,272 | 99·71 | 49·21 |

No. I—*contd.*

| Total number of persons vaccinated. | | | Average number of persons vaccinated by each Vaccinator. | Primary Vaccination. | | | | |
|---|---|---|---|---|---|---|---|---|
| | | | | Total. | Successful. | | | Unknown. |
| | | | | | Under one year. | One and under six years. | Total of all ages. | |
| 6 | | | 7 | 8 | 9 | 10 | 11 | 12 |
| Males. | Females. | Total. | | | | | | |
| P. 7,001 | 2,085 | 9,086 | 1,997 | 9,086 | 212 | 588 | 800 | 7,408 |
| R. 899 | ..... | 899 | | | | | | |
| Males. | Females. | Total. | | | | | | |
| P. 52,001 | 45,293 | 97,294 | 2,871 | 97,310 | 58,006 | 20,466 | 79,338 | 16,866 |
| R. 56,494 | 12,729 | 69,223 | | | | | | |
| P. 264,864 | 248,526 | 513,390 | 1,669 | 502,413 | 356,653 | 111,551 | 453,556 | 55,323 |
| R. 52,575 | 10,348 | 62,923 | | | | | | |
| P. 1,076 | 969 | 2,055 | 1,235 | 2,055 | 1,301 | 418 | 1,737 | 316 |
| R. 1,185 | 464 | 1,649 | | | | | | |
| P. 22,061 | 20,745 | 42,806 | 1,468 | 42,807 | 34,219 | 5,721 | 40,050 | 2,735 |
| R. 2,032 | 675 | 2,707 | | | | | | |
| P. 1,040 | 308 | 1,348 | ... | 1,348 | 250 | 290 | 1,229 | 82 |
| R. 7,185 | 588 | 7,773 | | | | | | |
| P. 314,991 | 295,096 | 610,087 | 1,261 | 610,126 | 396,210 | 132,725 | 535,860 | 72,587 |
| R. 117,439 | 24,124 | 141,563 | | | | | | |
| P. 22,061 | 20,745 | 42,806 | 1,468 | 42,807 | 34,219 | 5,721 | 40,050 | 2,735 |
| R. 2,032 | 675 | 2,707 | | | | | | |
| P. 337,052 | 315,841 | 652,893 | 1,833 | 652,933 | 430,429 | 138,446 | 575,910 | 75,322 |
| R. 119,471 | 24,799 | 144,270 | | | | | | |

*mary*

| Average number of persons vaccinated by each Vaccinator. | | Number of children successfully vaccinated. | | Ratio of successful vaccinations per 1,000 of population. | Total cost of Department. | Average cost of each successful case. |
|---|---|---|---|---|---|---|
| Vaccinators employed. | Persons vaccinated by each vaccinator. | Under one year. | One and under six years. | | | |
| 434<br>1 S.A.S. | 1,833 | 430,179 | 188,166 | 28·92 | Rs. a. p.<br>6,63,821 12 8 | Rs. a. p.<br>0 15 8 |
| ... | ... | 250 | 290 | ... | ... | ... |
| ... | ... | ... | ... | ... | ... | ... |
| 434<br>1 S.A.S. | 1,833 | 430,429 | 188,446 | 28·92 | 6,63,821 12 8 | 0 15 8 |

STATEMENT

| No. | Circles and Districts. | Re-vaccination. | | | Percentage of successful cases in which the results were known. | |
|---|---|---|---|---|---|---|
| | | Total. | Successful. | Unknown. | Primary. | Re-vaccination. |
| 1 | 2 | 13 | 14 | 15 | 16 | 17 |
| | ADEN—*contd.* | | | | | |
| 132 | Aden (Municipal ... ... ... | 899 | 181 | 718 | 57·48 | 100·00 |
| | TOTAL BY ESTABLISHMENTS. | | | | | |
| | Municipal ... ... ... | 69,223 | 2,783 | 62,886 | 98·64 | 43·99 |
| | Local Fund ... ... ... | 62,920 | 16,571 | 19,098 | 99·59 | 37·62 |
| | Cantonments ... ... ... | 1,649 | 587 | 828 | 99·90 | 65·41 |
| | Native States ... ... ... | 2,707 | 523 | 696 | 99·95 | 26·01 |
| | Dispensaries ... ... ... | 7,773 | 5,062 | 406 | 97·08 | 68·71 |
| | In the British Territory ... ... ... | 141,565 | 24,958 | 88,218 | 99·69 | 42·77 |
| | In the Native States ... ... ... | 2,707 | 523 | 696 | 99·95 | 26·01 |
| | Grand Total ... | 144,272 | 25,476 | 88,914 | 99·71 | 42·91 |

No. I—*concld.*

| Persons successfully vaccinated per 1,000 of population. | Percentage of unknown cases to total cases. | | Average annual number of persons successfully vaccinated during previous five years. | | Average annual number of deaths from small-pox during previous five years. | |
|---|---|---|---|---|---|---|
| | Primary. | Re-vaccination. | Number. | Ratio per 1,000. | Number. | Ratio per 1,000. |
| 18 | 19 | 20 | 21 | 22 | 23 | 24 |
| 17·36 | 81·53 | 79·67 | 2,165 | 38·32 | 47 | 0·83 |
| 24·53 | 17·34 | 90·84 | 80,756 | 24·13 | 1,716 | 0·51 |
| 29·39 | 10·86 | 30·35 | 460,806 | 28·81 | 2,961 | 0·19 |
| 23·75 | 15·38 | 50·21 | 2,518 | 26·29 | 10 | 0·10 |
| 30·87 | 6·39 | 25·71 | 38,797 | 29·52 | ... | ... |
| ... | 6·09 | 5·22 | 9,121 | ... | ... | ... |
| 28·85 | 11·89 | 58·79 | 545,225 | 28·05 | 4,562 | 0·23 |
| 30·87 | 6·39 | 25·71 | 38,797 | 29·52 | ... | ... |
| 28·92 | 11·54 | 58·16 | 584,041 | 28·20 | 4,562 | 0·22 |

STATEMENT

*Showing the Cost of the Department in the*

| No. | Circles and Districts. | European Supervising Officers. | Pay. | Inspectors of Sanitation and Vaccination. | Pay. |
|---|---|---|---|---|---|
| | | | EXPEN | | |
| | WESTERN REGISTRATION DISTRICT. | | Rs. a. p. | | Rs. a. p. |
| | Administrative Charges ... | 1 | 9,240 0 0 | 8 | 8,590 6 0 |
| 1 | East Khandesh Collectorate ... | ... | ..... | ..... | ..... |
| 2 | West Khandesh do. ... | ... | ..... | ..... | ..... |
| 3 | Nasik do. ... | ... | ..... | ..... | ..... |
| 4 | Thana do. ... | ... | ..... | ..... | ..... |
| 5 | Bombay Suburban do. ... | ... | ..... | ..... | ..... |
| 6 | Kolaba do. ... | ... | ..... | ..... | ..... |
| | Total ... | 1 | 9,240 0 0 | 8 | 8,590 6 0 |
| 7 | Bombay City ... ... ... | 1 | 4,045 7 0 | 1 | 1,386 9 0 |
| | CENTRAL REGISTRATION DISTRICT. | | | | |
| | Administrative Charges ... | 1 | 13,400 4 0 | 6 | 8,499 0 0 |
| 8 | Ahmednagar Collectorate ... | ... | ..... | ..... | ..... |
| 9 | Poona do. ... | ... | ..... | ..... | ..... |
| 10 | Sholapur do. ... | ... | ..... | ..... | ..... |
| 11 | Satara do. ... | ... | ..... | ..... | ..... |
| 12 | Ratnagiri do. ... | ... | ..... | ..... | ..... |
| | Total ... | 1 | 13,400 4 0 | 6 | 8,499 0 0 |
| | SOUTHERN REGISTRATION DISTRICT. | | | | |
| | Administrative Charges ... | 1 | 12,800 0 0 | 7 | 9,816 4 0 |
| 13 | Belgaum Collectorate ... ... | ... | ..... | ..... | ..... |
| 14 | Dharwar do. ... ... | ... | ..... | ..... | ..... |
| 15 | Bijapur do. ... ... | ... | ..... | ..... | ..... |
| 16 | Kanara do. ... ... | ... | ..... | ..... | ..... |
| | Total ... | 1 | 12,800 0 0 | 7 | 9,816 4 0 |

No. II.

*Bombay Presidency during the year 1928-29.*

DITURE.

| Vaccinators. | Pay. | Clerks. | Pay. | Peons, etc. | Pay. | Total Pay of Establishment. |
|---|---|---|---|---|---|---|
| | Rs. a. p. | | Rs. a. p. | | Rs. a. p. | Rs. a. p. |
| ..... | ..... | 2 | 3,360 0 0 | 12 | 2,114 7 0 | 23,304 13 0 |
| 22 | 9,534 0 0 | ..... | ..... | 20 | 3,559 6 0 | 13,093 6 0 |
| 16 | 7,643 6 0 | ..... | ..... | 15 | 2,835 1 0 | 10,478 7 0 |
| 23 | 10,069 0 0 | ..... | ..... | 20 | 3,287 11 0 | 13,356 11 0 |
| 22 | 9,913 7 0 | ..... | ..... | 20 | 3,593 11 0 | 13,507 2 0 |
| 4 | 2,383 13 0 | ..... | ..... | 4 | 898 2 0 | 3,281 15 0 |
| 16 | 6,401 6 0 | ..... | ..... | 15 | 2,294 13 0 | 8,696 3 0 |
| 103 | 45,945 0 0 | 2 | 3,360 0 0 | 106 | 18,583 3 0 | 85,718 9 0 |
| 9 | 10,029 3 0 | 6 | 9,090 5 0 | 28 | 11,844 13 0 | 36,396 5 0 |
| ..... | ..... | 2 | 1,560 0 0 | 10 | 1,852 9 0 | 25,311 13 0 |
| 19 | 8,741 11 0 | ..... | ..... | 19 | 3,070 12 0 | 11,812 7 0 |
| 20 | 8,968 6 0 | ..... | ..... | 21 | 3,408 12 0 | 12,377 2 0 |
| 16 | 6,554 9 10 | ..... | ..... | 15 | 2,985 12 0 | 9,540 5 10 |
| 22 | 9,955 11 0 | ..... | ..... | 20 | 3,306 12 0 | 13,262 7 0 |
| 22 | 9,347 8 0 | ..... | ..... | 21 | 3,797 8 0 | 13,145 0 0 |
| 99 | 43,567 13 10 | 2 | 1,560 0 0 | 106 | 18,422 1 0 | 85,449 2 10 |
| ..... | ..... | 1 | 1,410 0 0 | 10 | 1,791 0 0 | 25,817 4 0 |
| 18 | 8,478 7 0 | ..... | ..... | 18 | 3,018 1 0 | 11,496 8 0 |
| 23 | 10,943 0 10 | ..... | ..... | 23 | 3,872 14 0 | 14,815 14 10 |
| 20 | 8,173 5 6 | ..... | ..... | 20 | 2,986 4 3 | 11,159 9 9 |
| 16 | 7,506 12 0 | ..... | ..... | 16 | 2,650 5 0 | 10,157 1 0 |
| 77 | 35,101 9 4 | 1 | 1,410 0 0 | 87 | 14,318 8 3 | 73,446 5 7 |

STATEMENT

EXPENDITURE—*contd.*

| No. | Circles and Districts. | Travelling Allowances. | Contingencies. | Total Cost. | Imperial Funds |
|---|---|---|---|---|---|
| | | Rs. a. p. | Rs. a. p. | Rs. a. p. | Rs. a. p. |
| | **WESTERN REGISTRATION DISTRICT.** | | | | |
| | Administrative Charges ... | 7,939 6 0 | 784 15 9 | 32,029 2 9 | ..... |
| 1 | East Khandesh Collectorate ... | 5,286 14 0 | 1,136 12 2 | 19,617 0 2 | ..... |
| 2 | West Khandesh do. ... | 4,493 0 0 | 659 5 7 | 16,630 12 7 | ..... |
| 3 | Nasik do. ... | 4,659 12 0 | 825 5 0 | 18,811 12 0 | ..... |
| 4 | Thana do. ... | 4,854 0 0 | 590 5 3 | 18,951 7 3 | ..... |
| 5 | Bombay Suburban do. ... | 561 15 0 | 257 8 7 | 4,101 6 7 | ..... |
| 6 | Kolaba do. ... | 3,623 11 0 | 697 14 6 | 13,017 12 6 | ..... |
| | Total ... | 31,418 10 0 | 4,952 2 10 | 1,22,089 5 10 | ..... |
| 7 | Bombay City ... ... ... | 1,866 6 9 | 13,220 0 3 | 51,482 13 0 | ..... |
| | **CENTRAL REGISTRATION DISTRICT.** | | | | |
| | Administrative Charges ... | 7,226 5 0 | 1,188 1 3 | 33,726 3 3 | ..... |
| 8 | Ahmednagar Collectorate ... | 4,916 2 0 | 700 13 9 | 17,429 6 9 | ..... |
| 9 | Poona do. ... | 4,233 13 0 | 698 0 2 | 17,308 15 2 | ..... |
| 10 | Sholapur do. ... | 3,244 15 0 | 434 9 10 | 13,219 14 8 | ..... |
| 11 | Satara do. ... | 5,292 13 0 | 715 4 2 | 19,270 8 2 | ..... |
| 12 | Ratnagiri do. ... | 3,069 12 0 | 486 6 0 | 16,701 2 0 | ..... |
| | Total ... | 27,983 12 0 | 4,223 8 2 | 1,17,656 2 0 | ..... |
| | **SOUTHERN REGISTRATION DISTRICT.** | | | | |
| | Administrative Charges ... | 7,633 0 0 | 1,140 5 9 | 34,590 9 9 | ..... |
| 13 | Belgaum Collectorate ... ... | 4,762 15 0 | 711 10 0 | 16,971 1 0 | ..... |
| 14 | Dharwar do. ... ... | 4,934 6 0 | 891 6 1 | 20,641 10 11 | ..... |
| 15 | Bijapur do. ... ... | 4,908 8 6 | 728 4 4 | 16,796 6 7 | ..... |
| 16 | Kanara do. ... ... | 763 4 0 | 599 1 0 | 11,519 6 0 | ..... |
| | Total ... | 23,002 1 6 | 4,070 11 2 | 1,00,519 2 3 | ..... |

No. II—*contd.*

| Paid from | | | | Total | Number of all successfull Vaccinations and Re-Vaccinations. | Average cost of each successfull case. |
|---|---|---|---|---|---|---|
| Provincial Funds. | Local Funds. | Municipalities. | Native States. | | | |
| Rs. a. p. | Rs. a. p. | Rs. a. p. | Rs. a. p. | Rs. a. p. | | Rs. a. p. |
| 32,029 2 9 | ..... | ..... | ..... | 32,029 2 9 | ... | ..... |
| 4,174 1 0 | 12,730 13 8 | 2,612 1 6 | ..... | 19,517 0 2 | 29,231 | 0 10 8 |
| 828 7 0 | 12,183 0 0 | 1,941 12 1 | 677 9 6 | 15,630 12 7 | 19,668 | 0 12 8 |
| 3,959 4 0 | 13,063 3 2 | 1,672 14 10 | 146 6 0 | 18,841 12 0 | 23,576 | 0 12 9 |
| 3,266 6 4 | 13,464 7 2 | 1,546 9 9 | 674 0 0 | 18,951 7 3 | 22,950 | 0 13 2 |
| 330 13 0 | 1,661 3 7 | 2,109 6 0 | ..... | 4,101 6 7 | 5,400 | 0 12 2 |
| 2,843 4 0 | 10,174 8 6 | ..... | ..... | 13,017 12 6 | 14,871 | 0 14 0 |
| 47,431 6 1 | 63,277 4 1 | 9,882 12 2 | 1,497 15 6 | 1,22,089 5 10 | 112,110 | 1 0 8 |
| ..... | ..... | 51,482 12 0 | ..... | 51,482 12 0 | 20,548 | 2 8 1 |
| 33,726 3 3 | ..... | ..... | ..... | 33,726 3 3 | ... | ..... |
| 2,625 7 0 | 13,961 7 9 | 842 8 0 | ..... | 17,429 6 9 | 24,352 | 0 11 5 |
| 1,916 4 0 | 12,210 4 3 | 3,183 6 11 | ..... | 17,308 15 2 | 26,302 | 0 10 7 |
| 1,146 6 0 | 8,709 13 6 | 3,363 11 2 | ..... | 13,219 14 8 | 21,567 | 0 9 10 |
| 3,072 6 0 | 14,996 2 0 | 1,202 0 2 | ..... | 19,270 8 2 | 28,804 | 0 10 8 |
| 2,143 10 0 | 14,557 8 0 | ..... | ..... | 16,701 2 0 | 33,019 | 0 8 1 |
| 44,630 4 3 | 64,435 3 6 | 8,590 10 3 | ..... | 1,17,656 2 0 | 134,044 | 0 14 1 |
| 34,505 9 9 | ..... | ..... | 85 0 0 | 34,590 9 9 | ... | ..... |
| 2,594 15 0 | 13,596 2 0 | 780 0 0 | ..... | 16,971 1 0 | 32,593 | 0 8 4 |
| 2,809 7 0 | 14,901 7 0 | 2,442 0 0 | 488 12 11 | 20,641 10 11 | 35,301 | 0 9 4 |
| 1,440 0 0 | 13,682 15 4 | 841 7 8 | 832 0 0 | 16,796 6 7 | 32,557 | 0 8 3 |
| 2,311 13 0 | 8,434 7 10 | 773 1 2 | ..... | 11,519 6 0 | 11,807 | 0 15 7 |
| 43,661 12 9 | 50,615 0 2 | 4,836 8 5 | 1,405 12 11 | 1,00,519 2 3 | 113,258 | 0 11 11 |

STATEMENT

EXPEN

| No. | Circles and Districts. | European Supervising Officers. | Pay. | Inspectors of Sanitation and Vaccination. | Pay. |
|---|---|---|---|---|---|
| | GUJARAT REGISTRATION DISTRICT. | | Rs. a. p. | | Rs. a. p. |
| | Administrative Charges ... | 1 | 11,500 12 0 | 5 | 6,234 10 0 |
| 17 | Surat Collectorate ... ... | ... | ..... | ..... | ..... |
| 18 | Broach do. ... ... | ... | ... | ..... | ..... |
| 19 | Kaira do. ... ... | ... | ..... | ..... | ..... |
| 20 | Panch Mahals Collectorate ... | ... | ..... | ..... | ..... |
| 21 | Ahmedabad do. ... | ... | ..... | 1 | ..... |
| 22 | Mahi Kantha Agency ... ... | ... | ..... | 1 | 720 0 0 |
| 23 | Rewa Kantha do. ... ... | ... | ..... | ..... | ..... |
| | Total ... | 1 | 11,500 12 0 | 7 | 6,954 10 0 |
| | SIND REGISTRATION DISTRICT. | | | | |
| | Administrative Charges ... | 1 | 12,236 7 0 | 7 | 7,439 2 0 |
| 24 | Karachi Collectorate ... ... | ... | ..... | ..... | ..... |
| 25 | Hyderabad do. ... ... | ... | ..... | ..... | ..... |
| 26 | Nawabshah do. ... ... | ... | ..... | ..... | ..... |
| 27 | Thar and Parkar do. ... ... | ... | ..... | ..... | ..... |
| 28 | Larkana do. ... ... | ... | ..... | ..... | ..... |
| 29 | Sukkur do. ... ... | ... | ..... | ..... | ..... |
| 30 | Jacobabad do. ... ... | ... | ..... | ..... | ..... |
| 31 | Khairpur State ... ... | ... | ..... | ..... | ..... |
| | Total ... | 1 | 12,236 7 0 | 7 | 7,439 2 0 |
| | VACCINE INSTITUTE. | | | | |
| 32 | Belgaum ... ... ... | 1 | 16,647 9 0 | 8 | 6,443 8 0 |
| 33 | Aden ... ... ... | ... | ..... | ..... | ..... |
| | TOTAL OF PRESIDENCY ... ... | | 79,870 7 0 | ..... | 49,129 7 0 |

No. II—*contd.*

DITURE.

| Vaccinators. | Pay. | Clerks. | Pay. | Peons, etc. | Pay. | Total Pay of Establishment. |
|---|---|---|---|---|---|---|
| | Rs. a. p. | | Rs. a. p. | | Rs. a. p. | Rs. a. p. |
| ..... | ..... | 2 | 3,373 8 0 | 9 | 1,610 12 0 | 22,719 10 0 |
| 15 | 6,451 11 0 | ..... | ..... | 14 | 2,565 11 0 | 9,017 6 0 |
| 7 | 3,314 15 0 | ..... | ..... | 6 | 978 7 0 | 4,293 6 0 |
| 12 | 5,437 1 0 | ..... | ..... | 11 | 1,968 0 0 | 7,405 1 0 |
| 8 | 3,188 14 0 | ..... | ..... | 7 | 1,238 15 0 | 4,427 13 0 |
| 18 | 8,630 8 0 | 1 | 388 11 0 | 18 | 2,869 11 0 | 11,888 14 0 |
| 4 | 1,440 0 0 | ..... | ..... | 5 | 894 1 0 | 3,054 1 0 |
| 17 | 4,847 14 8 | ..... | .... | 16 | 2,048 4 11 | 6,896 3 7 |
| 81 | 33,310 15 8 | 3 | 3,762 3 0 | 86 | 14,173 13 11 | 69,702 6 7 |
| ..... | ..... | 3 | 3,304 0 0 | 10 | 2,022 2 0 | 25,501 11 0 |
| 15 | 7,662 11 0 | 1 | 1,315 0 0 | 16 | 4,038 8 0 | 13,016 3 0 |
| 13 | 9,039 11 0 | ..... | ..... | 12 | 2,932 6 0 | 11,972 1 0 |
| 10 | 4,896 14 0 | ..... | ..... | 10 | 1,901 14 0 | 6,738 12 0 |
| 16 | 6,682 5 0 | ..... | ..... | 16 | 3,529 11 0 | 10,162 0 0 |
| 13 | 5,673 0 0 | ..... | ..... | 13 | 2,678 9 0 | 8,351 9 0 |
| 12 | 4,669 11 0 | ..... | ..... | 13 | 2,472 10 0 | 7,142 5 0 |
| 7 | 3,155 4 0 | ..... | ..... | 7 | 1,588 7 0 | 4,743 11 0 |
| 6 | 2,367 12 4 | ..... | ..... | 6 | 815 3 7 | 3,182 15 11 |
| 92 | 44,037 4 4 | 4 | 5,119 0 0 | 103 | 21,979 6 7 | 90,811 3 11 |
| 9 | 7,940 10 0 | 3 | 2,520 0 0 | 22 | 4,150 7 0 | 37,702 2 0 |
| ..... | ..... | ..... | ..... | ..... | ..... | ..... |
| ..... | 2,19,932 8 2 | ..... | 26,821 8 0 | ..... | 1,03,472 4 9 | 4,79,226 2 11 |

STATEMENT

EXPENDITURE—*contd.*

| No. | Circles and Districts. | Travelling Allowances. | Contingencies. | Total Cost. | Imperial Funds. |
|---|---|---|---|---|---|
| | GUJARAT REGISTRATION DISTRICT. | Rs. a. p. | Rs. a. p. | Rs. a. p. | Rs. a. p. |
| | Administrative Charges ... | 5,879 13 0 | 1,820 12 3 | 30,420 3 3 | |
| 17 | Surat Collectorote ... ... | 2,967 6 0 | 576 0 0 | 12,560 12 0 | |
| 18 | Broach do. ... ... | 1,315 8 0 | 162 5 7 | 5,771 3 7 | |
| 19 | Kaira do. ... ... | 2,478 15 0 | 338 1 9 | 10,217 1 9 | |
| 20 | Panch Mahals do. ... ... | 1,727 6 0 | 302 4 2 | 6,457 7 2 | |
| 21 | Ahmedabad do. ... ... | 2,895 0 0 | 971 9 0 | 15,755 7 0 | |
| 22 | Mahi Kantha Agency ... ... | 1,024 8 9 | 223 0 10 | 4,301 5 7 | |
| 23 | Rewa Kantha do. ... ... | 1,435 0 8 | 302 11 2 | 8,633 15 5 | |
| | Total ... | 19,718 4 5 | 4,696 12 9 | 94,117 7 9 | ..... |
| | SIND REGISTRATION DISTRICT. | | | | |
| | Administrative Charges ... | 8,113 5 0 | 2,115 10 5 | 35,730 10 5 | ..... |
| 24 | Karachi Collectorate ... ... | 4,200 15 0 | 1,114 2 8 | 18,331 4 8 | ..... |
| 25 | Hyderabad do. ... ... | 3,088 3 0 | 528 5 10 | 15,588 9 10 | ..... |
| 26 | Nawabshah do. ... ... | 2,291 15 0 | 427 11 7 | 9,458 6 7 | ..... |
| 27 | Thar and Parkar Collectorate ... | 3,768 7 0 | 827 4 1 | 14,752 11 1 | ..... |
| 28 | Larkana do. ... | 3,026 0 0 | 616 7 10 | 11,994 0 10 | ..... |
| 29 | Sukkur do. ... | 2,801 4 0 | 452 13 6 | 10,396 6 6 | ..... |
| 30 | Jacobabad do. ... | 1,531 14 0 | 323 7 7 | 6,599 0 7 | ..... |
| 31 | Khairpur State ... ... | 1,040 0 0 | 86 8 0 | 4,309 2 11 | ..... |
| | Total ... | 29,856 15 0 | 6,492 2 6 | 1,27,160 5 5 | ..... |
| | VACCINE INSTITUTE. | | | | |
| 32 | Belgaum ... ... ... | 560 2 0 | 31,984 0 1 | *47,011 0 1 | ..... |
| 33 | Aden ... ... ... | ..... | ..... | 3,785 9 4 | ..... |
| | TOTAL OF PRESIDENCY ... | 184,406 3 8 | 69,689 0 9 | 6,68,821 12 8 | ..... |

| | Rs. | a. | p. |
|---|---|---|---|
| *Total expenditure ... | 70,246 | 4 | 1 |
| *Deduct*—Sale-proceeds ... | 23,235 | 4 | 0 |
| | 47,011 | 0 | 1 |

No. II—*concld.*

| Paid from | | | | Total. | Number of all successful Vaccinations and Re-Vaccinations. | Average cost of each successful case. |
|---|---|---|---|---|---|---|
| Provincial Funds. | Local Funds. | Municipality. | Native States. | | | |
| Rs. a. p. | Rs. a. p. | Rs. a. p. | Rs. a. p. | Rs. a. p. | | Rs. a. p. |
| 30,420 3 3 | ..... | ..... | ..... | 30,420 3 3 | ... | ..... |
| 1,341 4 0 | 9,680 15 0 | 1,538 9 0 | ..... | 12,560 12 0 | 18,559 | 0 10 10 |
| 1,119 0 0 | 3,975 5 10 | 676 13 9 | ..... | 5,771 3 7 | 9,045 | 0 10 2 |
| 1,696 5 0 | 7,729 11 0 | 791 1 9 | ..... | 10,217 1 9 | 20,408 | 0 8 0 |
| 1,008 5 0 | 5,150 2 2 | 299 0 0 | ..... | 6,457 7 2 | 11,415 | 0 9 0 |
| 1,911 14 0 | 8,812 12 0 | 5,030 13 0 | ..... | 15,755 7 0 | 25,144 | 0 10 0 |
| ..... | ..... | ..... | 4,301 5 7 | 4,301 5 7 | 6,061 | 0 11 4 |
| ..... | ..... | ..... | 8,633 15 5 | 8,633 15 5 | 24,365 | 0 5 8 |
| 37,496 15 3 | 35,348 14 0 | 8,336 5 5 | 12,935 5 0 | 94,117 7 9 | 114,997 | 0 13 1 |
| 35,730 10 5 | ..... | ..... | ..... | 35,730 10 5 | ... | ..... |
| 2,078 8 0 | 9,127 6 7 | 7,125 6 1 | ..... | 18,331 4 8 | 14,861 | 1 3 8 |
| 1,909 3 0 | 9,517 6 10 | 4,262 0 0 | ..... | 15,688 9 10 | 14,463 | 1 1 4 |
| 1,485 2 0 | 7,973 4 7 | ..... | ..... | 9,458 6 7 | 11,931 | 0 12 8 |
| 2,020 3 0 | 12,732 9 1 | ..... | ..... | 14,752 11 1 | 11,770 | 1 4 6 |
| 1,851 7 0 | 9,328 14 10 | 813 11 0 | ..... | 11,994 0 0 | 16,008 | 0 12 0 |
| 342 0 0 | 7,389 13 0 | 2,664 9 6 | ..... | 10,396 6 6 | 15,796 | 0 10 6 |
| 1,040 2 0 | 4,854 8 7 | 704 6 0 | ..... | 6,599 0 7 | 8,376 | 0 12 7 |
| ..... | ..... | ..... | 4,309 2 11 | 4,309 2 11 | 5,025 | 0 13 8 |
| 46,357 2 5 | 60,923 15 6 | 15,570 0 7 | 4,309 2 11 | 1,27,160 5 5 | 98,170 | 1 4 9 |
| 47,011 0 1 | ..... | ..... | ..... | 47,011 0 1 | ... | ..... |
| ..... | ..... | ..... | ..... | 3,785 9 4 | 981 | 3 13 9 |
| 2,66,588 8 10 | 2,74,600 5 3 | 98,699 0 11 | 20,148 4 4 | 6,63,821 12 8 | 595,095 | 0 15 8 |

STATEMENT

*Comparative Statement showing the number of persons successfully vaccinated in each*

| Establishment. | Persons Primarily | | | |
|---|---|---|---|---|
| | Total Number. | Number successfully vaccinated. | Total Number. | Number successfully vaccinated. |
| | Years ended | | | |
| | 1919-1920. | | 1920-1921. | |
| Municipal ... ... ... | 67,217 | 58,567 | 71,503 | 62,806 |
| Local Fund ... ... ... | 454,364 | 407,269 | 435,433 | 392,041 |
| Cantonment ... ... ... | 1,529 | 1,398 | 1,548 | 1,260 |
| Native States ... ... ... | 84,478 | 82,448 | 81,719 | 79,613 |
| Dispensaries ... ... ... | 947 | 785 | 473 | 444 |
| Total ... | 608,535 | 550,462 | 590,676 | 536,184 |

| Establishment. | Persons Primarily | | | |
|---|---|---|---|---|
| | Total Number. | Number successfully vaccinated. | Total Number. | Number successfully vaccinated. |
| | Years ended | | | |
| | 1924-1925. | | 1925-1926. | |
| Municipal ... ... ... | 85,254 | 76,025 | 83,184 | 73,984 |
| Local Fund ... ... ... | 484,794 | 436,886 | 504,178 | 462,368 |
| Cantonment ... ... ... | 1,291 | 1,097 | 1,720 | 1,125 |
| Native States ... ... ... | 40,731 | 38,353 | 42,194 | 39,126 |
| Dispensaries ... ... ... | 813 | 596 | 929 | 542 |
| Total ... | 612,883 | 552,957 | 632,205 | 567,145 |

No. IV.

*primarily vaccinated and the number of those persons who were of the undermentioned official years.*

VACCINATED.

| Total Number. | Number successfully vaccinated. | Total Number. | Number successfully vaccinated. | Total Number. | Number successfully vaccinated. |
|---|---|---|---|---|---|
| ON 31ST MARCH. | | | | | |
| 1921-1922. | | 1922-1923. | | 1923-1924. | |
| 80,258 | 69,818 | 80,048 | 70,658 | 85,903 | 75,966 |
| 455,216 | 413,165 | 466,085 | 422,766 | 486,311 | 441,967 |
| 1,914 | 1,588 | 1,421 | 1,280 | 2,366 | 2,187 |
| 39,425 | 36,989 | 39,403 | 37,019 | 41,078 | 38,267 |
| 877 | 729 | 780 | 685 | 662 | 479 |
| 577,690 | 522,289 | 587,737 | 532,408 | 616,320 | 558,866 |

VACCINATED—*continued.*

| Total Number. | Number successfully vaccinated. | Total Number. | Number successfully vaccinated. | Total Number. | Number successfully vaccinated. |
|---|---|---|---|---|---|
| ON 31ST MARCH—*continued.* | | | | | |
| 1926-1927. | | 1927-1928. | | 1928-1929. | |
| 114,209 | 77,609 | 100,264 | 77,224 | 97,310 | 79,338 |
| 504,987 | 449,538 | 508,298 | 451,750 | 509,413 | 453,556 |
| 2,213 | 1,902 | 1,954 | 1,663 | 2,055 | 1,737 |
| 40,941 | 38,106 | 39,795 | 36,465 | 42,807 | 40,050 |
| 773 | 514 | 808 | 609 | 1,348 | 1,229 |
| 663,123 | 567,669 | 651,119 | 567,711 | 692,933 | 575,910 |

STATEMENT

*Showing Particulars of Vaccination*

| District. | | Total number of persons vaccinated. | | Total number inspected. | | | |
|---|---|---|---|---|---|---|---|
| | | | | By Assistant Directors of Public Health or Civil Surgeons. | | By Native Superintendents or other Inspecting Officers. | |
| | | Primary. | Re-vaccinations | Primary. | Re-vaccinations | Primary. | Re-vaccinations |
| Western Registration District. | East Khandesh ... | 37,307 | 1,253 | 4,081 | 23 | 13,134 | 151 |
| | West Khandesh ... | 24,167 | 1,371 | ... | ... | 14,505 | 93 |
| | Nasik ... | 30,258 | 1,666 | 2,359 | ... | 9,012 | 81 |
| | Thana ... | 25,195 | 1,275 | 553 | ... | 13,480 | 34 |
| | Bombay Suburban ... | 5,141 | 2,166 | 1,016 | ... | ... | ... |
| | Kolaba ... | 19,580 | 488 | ... | ... | 6,965 | 8 |
| | Bombay City ... | 23,584 | 47,416 | 4,705 | ... | 4,357 | ... |
| Central Registration District. | Ahmednagar ... | 27,772 | 1,489 | ... | ... | 7,265 | ... |
| | Poona ... | 28,808 | 3,857 | ... | ... | 1,060 | ... |
| | Sholapur ... | 25,145 | 611 | 98 | ... | 5,414 | 58 |
| | Satara ... | 31,385 | 691 | 512 | ... | 9,265 | 6 |
| | Ratnagiri ... | 35,108 | 1,170 | 375 | ... | 10,105 | ... |
| Southern Registration District. | Belgaum ... | 31,038 | 12,406 | 2,893 | 5 | 8,374 | 503 |
| | Dharwar ... | 31,505 | 1,872 | ... | ... | 5,260 | 660 |
| | Bijapur ... | 26,869 | 12,960 | 27 | ... | 6,086 | 89 |
| | Kanara ... | 16,297 | 3,908 | 83 | ... | 4,090 | 455 |
| Gujarat Registration District. | Surat ... | 20,076 | 751 | 1,270 | ... | 4,980 | 1 |
| | Broach ... | 9,903 | 254 | 1,783 | 31 | 2,780 | 31 |
| | Kaira ... | 33,152 | 526 | ... | ... | 7,754 | 62 |
| | Panch Mahals ... | 12,205 | 143 | ... | ... | 3,275 | 22 |
| | Ahmedabad ... | 27,243 | 907 | ... | ... | 12,151 | 107 |
| Sind Registration District. | Karachi ... | 16,897 | 14,119 | 157 | 9 | 1,084 | 189 |
| | Hyderabad ... | 15,026 | 486 | 1,118 | 16 | 3,296 | 85 |
| | Nawabshah ... | 12,615 | 467 | 1,094 | 5 | 3,314 | 97 |
| | Thar and Parkar ... | 12,151 | 1,125 | ... | ... | 2,855 | 310 |
| | Larkana ... | 16,668 | 1,266 | ... | ... | 5,425 | 309 |
| | Sukkur ... | 16,813 | 1,939 | ... | ... | 5,991 | 108 |
| | Upper Sind Frontier ... | 8,726 | 464 | ... | ... | 2,742 | 81 |
| | Total for the Province ... | 502,634 | 133,845 | 22,124 | 88 | 164,449 | 3,540 |

No. V.

*verified by Inspecting Officers in 1928-1929.*

| Percentage of Inspections to total number vaccinated. | | | | Percentage of cases found successful of total number inspected. | | | | Percentage of success reported by Vaccinators. | |
|---|---|---|---|---|---|---|---|---|---|
| By Assistant Directors of Public Health or Civil Surgeons. | | By Native Superintendents or other Inspecting Officers. | | By Assistant Directors of Public Health or Civil Surgeons. | | By Native Superintendents or other Inspecting Officers. | | | |
| Primary. | Re-vaccinations. | Primary. | Re-vaccinations | Primary. | Re-vaccinations | Primary. | Re-vaccinations | Primary. | Re-vaccinations. |
| 10·94 | 1·75 | 35·21 | 12·05 | 97·45 | 22·73 | 98·54 | 31·78 | 38·43 | 4·31 |
| ... | ... | 60·02 | 6·78 | ... | ... | 96·87 | 51·61 | 64·32 | 3·57 |
| 7·79 | ... | 29·78 | 4·86 | 98·43 | ... | 97·61 | 48·14 | 39·43 | 3·54 |
| 3·19 | ... | 53·50 | 2·17 | 99·64 | ... | 98·93 | 29·41 | 67·98 | 1·09 |
| 19·76 | ... | ... | ... | 99·51 | ... | ... | ... | ... | ... |
| ... | ... | 30·46 | 16·39 | ... | ... | 99·27 | 87·50 | 38·28 | 1·02 |
| 21·00 | ... | 19·00 | ... | 99·00 | ... | 99·00 | ... | 99·00 | ... |
| ... | ... | 26·16 | ... | ... | ... | 98·47 | ... | 85·67 | 88·91 |
| ... | ... | 3·68 | ... | ... | ... | 99·06 | ... | 87·52 | 28·18 |
| 0·39 | ... | 21·53 | 9·49 | 98·98 | ... | 98·97 | 34·47 | 84·70 | 43·95 |
| 1·63 | ... | 29·52 | 0·87 | 96·41 | ... | 99·64 | 66·69 | 91·14 | 30·25 |
| 1·06 | ... | 28·78 | ... | 98·93 | ... | 99·26 | ... | 92·14 | 57·45 |
| 9·32 | 0·04 | 26·98 | 4·05 | 99·72 | 40·00 | 99·43 | 12·92 | 94·42 | 24·04 |
| ... | ... | 16·70 | 3·53 | ... | ... | 99·66 | 27·58 | 95·69 | 21·80 |
| 0·10 | ... | 22·65 | 0·69 | 100·00 | ... | 99·24 | 11·24 | 97·96 | 28·58 |
| 0·81 | ... | 39·72 | 11·64 | 98·80 | ... | 99·12 | 32·75 | 98·56 | 42·43 |
| 6·38 | ... | 24·81 | ·13 | 99·76 | ... | 99·40 | ... | 87·12 | 23·30 |
| 18·00 | 12·20 | 28·07 | 12·20 | 99·78 | 51·61 | 99·64 | 45·16 | 90·30 | 40·35 |
| ... | ... | 3[illegible]·00 | 11·79 | ... | ... | 99·81 | 37·10 | 91·47 | 27·57 |
| ... | ... | 26 83 | 15·38 | ... | ... | 99·70 | 27·27 | 90·48 | 32·17 |
| ... | ... | 44·60 | 11·80 | ... | ... | 99·70 | 48·60 | 91·51 | 23·70 |
| ·93 | ·06 | 11·74 | 1·34 | 98·9 | ... | 98·84 | 6·35 | 86·47 | 1·78 |
| 7·44 | 3·29 | 21·94 | 17·47 | 99·11 | 6·25 | 98·70 | 4·71 | 95·10 | 23·25 |
| 8·75 | 1·07 | 26·27 | 2·08 | 99·27 | 40·00 | 99·22 | ... | 93·78 | 21·63 |
| ... | ... | 19·38 | 27·56 | ... | ... | 99·75 | 2·90 | 95·74 | 12·18 |
| ... | ... | 32·55 | 24·41 | ... | ... | 99·76 | 2·27 | 94·28 | 23·14 |
| ... | ... | 35·63 | 5·57 | ... | ... | 99·32 | 3·70 | 92·82 | 9·80 |
| ... | ... | 31·42 | 17·24 | ... | ... | 99·50 | 1·23 | 95·21 | 14·87 |
| 4·40 | 0·07 | 32·72 | 2·64 | 99·01 | 31·08 | 99·14 | 29·68 | 90·57 | 19·85 |

APPENDIX

STATEMENT

*Showing the Particulars of Vaccination in*

| Number. | Circles and Districts. | Population of District according to Census of 1921. | Average Population per square mile. | Average Number of Vaccinators employed throughout the year. |
|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 |
| 1 | Idar ... ... ... | 202,811 | 64 | 6 |
| 2 | Cambay ... ... ... | 71,679 | 207 | 2 |
| 3 | Aundh (Pant Pratinidhi) ... ... | 64,560 | ... | 2 |
| 4 | Akalkot ... ... ... | 81,250 | ... | 2 |
| 5 | Bhor (Pant Sachiv) ... ... | 130,420 | ... | 3 |
| 6 | Phaltan ... ... ... | 43,286 | ... | 1 |
| 7 | Sávantwádi ... ... ... | 206,440 | ... | 6 |
| 8 | Sangli State ... ... ... | 221,321 | 199 | 6 |
| 9 | Jamkhandi State ... ... | 101,195 | 193 | 4 |
| 10 | Miraj Senior State ... ... | 82,580 | 241 | 2 |
| 11 | Miraj Junior State ... ... | 34,665 | 164 | 1 |
| 12 | Kurundwad State (Senior) ... ... | 38,760 | 210 | 1 |
| 13 | Kurundwad State (Junior) ... ... | 34,296 | 296 | 1 |
| 14 | Mudhol ... ... ... | 60,140 | 167 | 1 |
| 15 | Ramdurg ... ... ... | 33,997 | 205 | 1 |
| 16 | Kolhápur ... ... ... | 833,726 | 2,590 | 13 |
| 17 | Janjira ... ... ... | 87,534 | 270 | 2 |
| 18 | Bansda ... ... ... | 40,125 | 187 | 1 |
| | Grand Total ... | 2,368,785 | ... | 55 |

V.

No. I.

*Indian States during the year 1928-29.*

| Total Number of Persons vaccinated. | | | Average Number of persons vaccinated by each Vaccinator. | Primary Vaccination. | | | |
|---|---|---|---|---|---|---|---|
| | | | | Total. | Successful. | | |
| | | | | | Under one year. | One and under six years. | Total of all ages. |
| Males. | Females. | Total. | 7 | 8 | 9 | 10 | 11 |
| P. 5,216 | 4,940 | 10,153 | 1,692 | 10,153 | 7,572 | 2,553 | 10,125 |
| R. 3 | ... | 3 | | | | | |
| P. 1,287 | 1,108 | 2,395 | 1,201 | 2,395 | 1,889 | 493 | 2,382 |
| R. 7 | ... | 7 | | | | | |
| P. 1,070 | 1,046 | 2,116 | 1,137 | 2,134 | 1,340 | 489 | 1,839 |
| R. 103 | 56 | 159 | | | | | |
| P. 1,558 | 1,268 | 2,826 | 1,451 | 2,826 | 2,258 | 482 | 2,793 |
| R. 75 | 2 | 77 | | | | | |
| P. 2,114 | 2,131 | 4,245 | 1,597 | 4,245 | 3,076 | 916 | 4,054 |
| R. 453 | 92 | 545 | | | | | |
| P. 740 | 665 | 1,395 | 1,402 | 1,395 | 1,276 | 116 | 1,395 |
| R. 5 | 2 | 7 | | | | | |
| P. 3,185 | 3,177 | 6,362 | 1,061 | 6,362 | 4,610 | 1,731 | 6,357 |
| R. 2 | 1 | 3 | | | | | |
| P. 3,812 | 3,561 | 7,373 | 1,347 | 7,373 | 6,432 | 902 | 7,367 |
| R. 664 | 44 | 708 | | | | | |
| P. 1,988 | 1,830 | 3,818 | 972 | 3,818 | 3,139 | 652 | 3,818 |
| R. 63 | 8 | 71 | | | | | |
| P. 1,981 | 1,720 | 3,701 | 1,944 | 3,701 | 3,103 | 550 | 3,694 |
| R. 159 | 29 | 188 | | | | | |
| P. 544 | 495 | 1,039 | 1,123 | 1,039 | 712 | 298 | 1,039 |
| R. 72 | 12 | 84 | | | | | |
| P. 741 | 692 | 1,433 | 1,760 | 1,433 | 1,158 | 216 | 1,388 |
| R. 321 | 6 | 327 | | | | | |
| P. 746 | 711 | 1,457 | 1,754 | 1,457 | 1,081 | 329 | 1,430 |
| R. 296 | 1 | 297 | | | | | |
| P. 849 | 827 | 1,676 | 2,320 | 1,676 | 1,356 | 304 | 1,673 |
| R. 556 | 88 | 644 | | | | | |
| P. 660 | 541 | 1,201 | 1,719 | 1,201 | 912 | 285 | 1,201 |
| R. 429 | 89 | 518 | | | | | |
| P. 14,531 | 14,138 | 28,669 | 2,320 | 28,669 | 25,832 | 2,698 | 28,650 |
| R. 1,461 | 33 | 1,494 | | | | | |
| P. 1,129 | 1,155 | 2,284 | 1,144 | 2,284 | 1,260 | 996 | 2,277 |
| R. 1 | 3 | 4 | | | | | |
| P. 530 | 435 | 965 | 1,018 | 965 | 365 | 235 | 600 |
| R. 53 | ... | 53 | | | | | |
| P. 42,681 | 40,430 | 83,111 | 1,605 | 83,126 | 67,371 | 14,245 | 82,082 |
| R. 4,723 | 466 | 5,189 | | | | | |

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# APPENDIX

## STATEMENT

| Number. | Circles and Districts. | Primary Vaccination—*contd.* | Re-vaccination. | | | Percentage which were successful |
|---|---|---|---|---|---|---|
| | | Unknown. | Total. | Successful. | Unknown. | Primary. |
| 1 | 2 | 12 | 13 | 14 | 15 | 16 |
| 1 | Idar ... ... ... | 28 | 3 | 3 | ... | 90·59 |
| 2 | Cambay ... ... ... | 8 | 7 | 6 | ... | 99·04 |
| 3 | Aundh (Pant Pratinidhi) ... ... | 255 | 159 | 39 | 20 | 97·87 |
| 4 | Akalkot ... ... ... | 33 | 77 | 74 | 3 | 100·00 |
| 5 | Bhor (Pant Sachiv) ... ... | 178 | 545 | 102 | 221 | 99·68 |
| 6 | Phaltan ... ... ... | ... | 7 | .. | ... | 100·00 |
| 7 | Sawantwadi ... ... ... | 2 | 3 | 3 | ... | 99·95 |
| 8 | Sangli State ... ... ... | 4 | 708 | 163 | 80 | 99·97 |
| 9 | Jamkhandi State ... ... | ... | 71 | 59 | 2 | 100·00 |
| 10 | Miraj Senior State ... ... | 5 | 188 | 120 | 6 | 100·00 |
| 11 | Miraj Junior State ... ... | ... | 84 | 84 | ... | 100·00 |
| 12 | Kurundwad State (Senior) ... ... | 45 | 327 | 176 | 60 | 100·00 |
| 13 | Kurundwad State (Junior) ... ... | 26 | 297 | 144 | ... | 99·93 |
| 14 | Mudhol ... ... ... | ... | 644 | 69 | 114 | 99·82 |
| 15 | Ramdurg ... ... ... | ... | 518 | 370 | 57 | 100·00 |
| 16 | Kolhápur ... ... ... | 17 | 1,494 | 1,407 | ... | 99·99 |
| 17 | Janjira ... ... ... | 7 | 4 | 2 | ... | 100·00 |
| 18 | Bansda ... ... ... | 365 | 53 | 41 | 12 | 100·00 |
| | Grand Total ... | 973 | 5,189 | 2,862 | 575 | 99·99 |

V—*concld.*

No. I—*concld.*

| tage of successful cases in the results known. | Persons successfully vaccinated per 1,000 of Population. | Percentage of unknown cases to total cases. | | Average annual Number of Persons successfully vaccinated during previous five years. | | Average Annual Number of Deaths from Small-pox during previous five years. | |
|---|---|---|---|---|---|---|---|
| Re-vaccination. | | Primary. | Re-vaccination. | Number. | Ratio per 1,000. | Number. | Ratio per 1,000. |
| 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 |
| 100·00 | 44·05 | 0·27 | ... | 6,199 | 30·55 | 694 | 459 |
| 8·05 | 33·04 | 3·03 | ... | 2,340 | 32·64 | ... | ... |
| 14·39 | 29·01 | 11·75 | 12·87 | 1,697 | 26·29 | ... | ... |
| 100·00 | 35·29 | 1·17 | 3·90 | 2,804 | 34·51 | ... | ... |
| 31·48 | 31·87 | 4·19 | 40·55 | 1,898 | 43·85 | ... | ... |
| ... | 32·23 | ... | ... | 2,962 | 22·71 | ... | ... |
| 100·00 | 30·81 | 0·03 | ... | 6,591 | 31·93 | ... | ... |
| 25·96 | 34·02 | 0·05 | 11·30 | 8,017 | 36·23 | ... | ... |
| 85·51 | 38·31 | ... | 2·82 | 3,693 | 36·49 | ... | ... |
| 65·93 | 46·19 | ·14 | 3·19 | 3,687 | 44·65 | ... | ... |
| 100·00 | 32·40 | ... | ... | 1,190 | 34·33 | ... | ... |
| 65·92 | 42·44 | 3·14 | 18·35 | 1,487 | 38·36 | ... | ... |
| 48·48 | 45·89 | 1·78 | ... | 1,332 | 38·84 | ... | ... |
| 13·02 | 28·97 | ... | 17·70 | 1,899 | 31·58 | ... | ... |
| 81·14 | 46·21 | ... | 11·11 | 1,318 | 38·79 | ... | ... |
| 94·18 | 36·05 | ·06 | ... | 28,981 | 34·76 | ... | ... |
| 50·00 | 26·04 | ·31 | ... | 2,147 | 24·53 | ... | ... |
| 100·00 | 20 | ·38 | 23 | 976 | 24·32 | ... | ... |
| 16·12 | 35·98 | 11·83 | 11·08 | 78,589 | 33·57 | ... | ... |

## STATEMENT No. I—*concld.*

### *Summary*

| | Total number of persons vaccinated. | | Total number of operations performed. | | Percentage of successful cases in which results were known. | |
|---|---|---|---|---|---|---|
| | Primary. | Re-vaccination. | Primary. | Re-vaccination. | Primary. | Re-vaccination. |
| By Special Staff (Statement I). | 83,111 | 5,189 | 83,126 | 5,189 | 90·99 | 16·12 |

| | Average number of persons vaccinated by each vaccinator. | | Number of children successfully vaccinated. | | Ratio of successful vaccinations per 1,000 of population. | Total cost of Department. | Average cost of each successful case. |
|---|---|---|---|---|---|---|---|
| | Vaccinators employed. | Persons vaccinated by each vaccinator. | Under one year. | One and under six years. | | | |
| | | | | | | Rs. a. p. | Rs. a p. |
| By Special Staff (Statement I). | 55 | 1,605 | 67,371 | 14,245 | 35·98 | ..... | ... |

# STATEMENT II

STATEMENT

*Showing the Cost of the Department in*

Expend

| No. | Circles and Districts. | European Supervising Officers. | Pay. | Inspectors of Sanitation and Vaccination. | Pay. | Vaccinators. | Pay. | Clerks. | Pay. |
|---|---|---|---|---|---|---|---|---|---|
| | | | Rs. a. p. | | Rs. a. p. | | Rs. a. p. | | Rs. a. p. |
| 1 | Idar State ... | ... | ... | 1 | 390 0 0 | 6 | 1,814 0 0 | ... | ... |
| 2 | Cambay ... | ... | ... | 2 | 4,020 0 0 | 2 | 684 0 0 | ... | ... |
| 3 | Akalkot ... | ... | ... | 1 | 480 0 0 | 2 | 576 0 0 | ... | ... |
| 4 | Phaltan ... | ... | ... | ... | ... | 1 | 236 0 0 | ... | ... |
| 5 | Bhor ... | ... | ... | 1 | 432 0 0 | 4 | 799 6 6 | ... | ... |
| 6 | Sawantwadi ... | ... | ... | 1 | 710 5 3 | 6 | 1,624 7 5 | ... | ... |
| 7 | Aundh (Pant Pratinidhi). | ... | ... | ... | ... | 2 | 531 0 0 | ... | ... |
| 8 | Kolhapur State ... | ... | ... | 1 | 600 0 0 | 13 | 3,780 0 0 | 1 | 300 0 0 |
| 9 | S. M. Country States. | ... | ... | 8 | 2,862 2 10 | 17 | 3,878 9 9 | 1 | 203 11 5 |
| 10 | Janjira ... | ... | ... | ... | ... | 1 | 732 0 0 | ... | ... |
| 11 | Bansda ... | ... | ... | 1 | ... | 1 | 168 0 0 | ... | ... |
| | Total ... | ... | ... | 16 | 9,499 8 13 | 53 | 14,323 7 8 | 2 | 503 11 5 |

No. II

*the Indian States during the year 1928-29*

| iture. | | | | | | Paid from | |
|---|---|---|---|---|---|---|---|
| Peons, etc. | Pay. | Total Pay of Establishment. | Travelling Allowances. | Contingencies. | Total Cost. | Imperial Funds. | Provincial Funds. |
| | Rs. a. p. | Rs. a. p. | Rs. a. p. | Rs. a. p. | Rs. a. p. | Rs. a. p. | Rs. a. p. |
| 7 | 656 15 2 | 2,360 15 2 | ... | 742 11 0 | 3,103 10 2 | ... | ... |
| 9 | 275 12 0 | 959 12 0 | 203 6 0 | 346 9 6 | 5,528 10 6 | ... | ... |
| 3 | 420 0 0 | 1,476 0 0 | 382 3 0 | 57 14 0 | 1,916 1 0 | ... | ... |
| 1 | 90 0 0 | 326 0 0 | 100 15 0 | 6 11 0 | 432 10 0 | ... | ... |
| 4 | 303 6 7 | 1,534 13 1 | 279 15 3 | 239 9 10 | 2,054 6 2 | ... | ... |
| 6 | 864 0 0 | 3,198 12 8 | 438 8 9 | 183 5 0 | 3,820 10 5 | ... | ... |
| 2 | 207 0 0 | 733 0 0 | 337 10 5 | 11 8 0 | 1,087 2 5 | ... | ... |
| 14 | 1,546 0 0 | 6,226 0 0 | 1,860 0 0 | 441 6 0 | 8,527 6 0 | ... | ... |
| 24 | 2,936 8 9 | 9,880 0 9 | 3,067 9 7 | 1,228 0 11 | 14,176 11 3 | ... | ... |
| 1 | 216 0 0 | 948 0 0 | 240 0 0 | 62 12 0 | 1,250 12 0 | ... | ... |
| 1 | 84 0 0 | 252 0 0 | 160 0 0 | 89 0 0 | 501 0 0 | ... | ... |
| 65 | 7,593 10 6 | 27,900 5 8 | 7,069 3 0 | 3,408 7 3 | 42,397 15 11 | ... | ... |

## STATEMENT No. II—*concld.*

| No. | Circles and Districts. | Paid from—*contd.* | | | Total. | Number of all successful Vaccinations and Re-vaccinations. | Average cost of each successful case. |
|---|---|---|---|---|---|---|---|
| | | Local Funds. | Municipalities. | Native States. | | | |
| | | Rs. | Rs. | Rs. a. p. | Rs. a. p. | | Rs. a. p. |
| 1 | Idar State ... ... | ... | ... | 3,103 10 2 | 3,103 10 2 | 10,128 | 0 4 11 |
| 2 | Cambay ... ... | ... | ... | 5,528 10 6 | 5,528 10 6 | 2,388 | 2 5 0 |
| 3 | Akalkot ... ... | ... | ... | 1,916 1 0 | 1,916 1 0 | 2,867 | 0 10 8 |
| 4 | Phaltan ... ... | ... | ... | 432 10 0 | 432 10 0 | 1,395 | 0 4 11 |
| 5 | Bhor ... ... | ... | ... | 2,054 6 2 | 2,054 6 2 | 4,166 | 0 7 10 |
| 6 | Savantwadi ... ... | ... | ... | 3,820 10 5 | 3,820 10 5 | 6,360 | 0 0 7 |
| 7 | Aundh (Pant Pratinidhi) ... | ... | ... | 1,087 2 5 | 1,087 2 5 | 1,578 | 0 9 3 |
| 8 | Kolhapur State ... ... | ... | ... | 8,527 6 0 | 8,527 6 0 | 30,057 | 0 4 6 |
| 9 | S. M. Country States ... ... | ... | ... | 14,175 11 3 | 14,175 11 3 | 22,795 | 0 9 11 |
| 10 | Janjira ... ... | ... | ... | 1,250 12 0 | 1,250 12 0 | 2,279 | ... |
| 11 | Bansda ... ... | ... | ... | 501 0 0 | 501 0 0 | 826 | 0 0 8 |
| | Total ... | ... | ... | 42,397 15 11 | 42,397 15 11 | 92,129 | 0 7 4 |

## STATEMENT IV

STATEMENT

*Showing the number of persons primarily vaccinated and the each of the under-*

| Establishments. | PERSONS PRIMARILY | | | | | |
|---|---|---|---|---|---|---|
| | Total Number. | Number successfully vaccinated. | Total Number. | Number successfully vaccinated. | Total Number. | Number successfully vaccinated. |
| | YEARS ENDED | | | | | |
| | 1919-1920. | | 1920-1931. | | 1921-1922. | |
| Idar ... ... | ... | ... | 5,835 | 5,650 | 5,945 | 5,825 |
| Cambay ... ... | 1,847 | 1,841 | 1,781 | 1,769 | 2,121 | 2,090 |
| Bhor (Pant Sachiv) ... ... | 3,526 | 3,265 | 2,915 | 2,786 | 2,791 | 2,742 |
| Phaltan ... ... | 1,515 | 1,441 | 1,475 | 1,450 | 1,251 | 1,250 |
| Sávantvádi ... ... | 5,094 | 5,087 | 4,619 | 4,604 | 4,819 | 4,813 |
| Aundh ... ... | 1,889 | 1,940 | 1,743 | 1,565 | 1,965 | 1,884 |
| Akalkot ... ... | 3,049 | 2,994 | 2,953 | 2,895 | 3,149 | 3,072 |
| Janjira ... ... | 2,286 | 2,270 | 2,010 | 1,987 | 1,915 | 1,906 |
| Southern Maratha Country States... | 20,099 | 19,978 | 20,404 | 20,259 | 20,891 | 20,747 |
| Kolhapur ... ... | 21,582 | 21,561 | 23,681 | 23,652 | 24,428 | 24,419 |
| Banada ... ... | 1,006 | 982 | 1,192 | 1,094 | 1,454 | 1,391 |
| Total ... | 61,883 | 61,139 | 68,572 | 67,721 | 70,659 | 70,078 |

No. IV

*number of those persons who were successfully vaccinated in mentioned years*

VACCINATED.

| Total Number. | Number successfully vaccinated. | Total Number. | Number successfully vaccinated. | Total Number. | Number successfully vaccinated. | Total Number. | Number successfully vaccinated |
|---|---|---|---|---|---|---|---|
| ON 31ST MARCH. | | | | | | | |
| 1922-1923. | | 1923-1924. | | 1924-1925. | | 1925-1926. | |
| 5,887 | 5,734 | 6,330 | 6,180 | 6,021 | 5,899 | 5,788 | 5,768 |
| 2,047 | 1,881 | 2,167 | 2,130 | 2,438 | 2,384 | 2,407 | 2,320 |
| 3,135 | 3,020 | 2,764 | 2,707 | 3,988 | 3,788 | 3,921 | 3,673 |
| 1,245 | 1,242 | 1,507 | 1,506 | 1,356 | 1,256 | 1,315 | 1,315 |
| 5,387 | 5,382 | 2,496 | 2,361 | 6,637 | 6,637 | 6,212 | 6,206 |
| 2,071 | 1,906 | 6,064 | 6,063 | 1,968 | 1,779 | 1,615 | 1,406 |
| 3,010 | 2,965 | 1,890 | 1,688 | 2,970 | 2,930 | 2,718 | 2,692 |
| 2,019 | 2,013 | 2,145 | 2,142 | 2,172 | 2,166 | 2,194 | 2,161 |
| 21,062 | 21,006 | 20,924 | 20,866 | 20,867 | 20,810 | 22,241 | 22,181 |
| 25,435 | 25,415 | 26,004 | 25,995 | 27,158 | 27,155 | 26,372 | 26,361 |
| 1,262 | 1,150 | 1,496 | 1,349 | 1,221 | 1,173 | 1,426 | 1,245 |
| 72,560 | 71,714 | 73,787 | 73,087 | 76,798 | 76,078 | 76,209 | 75,328 |

# STATEMENT No. IV—*concld.*

| Establishments. | PERSONS PRIMARILY VACCINATED—*contd.* | | | | | |
|---|---|---|---|---|---|---|
| | Total Number. | Number successfully vaccinated. | Total Number. | Number successfully vaccinated. | Total Number. | Number successfully vaccinated. |
| | YEARS ENDED ON 31ST MARCH—*contd.* | | | | | |
| | 1926-1927. | | 1927-1928. | | 1928-1929. | |
| Idar ... ... | 6,089 | 5,998 | 7,073 | 7,064 | 10,153 | 10,125 |
| Cambay ... ... | 2,295 | 2,262 | 2,314 | 2,293 | 2,395 | 2,382 |
| Bhor (Pant Sachiv) ... ... | 3,511 | 3,335 | 4,184 | 3,985 | 4,245 | 4,054 |
| Phaltan ... ... | 1,401 | 1,401 | 1,448 | 1,448 | 1,395 | 1,395 |
| Sávantvádi ... ... | 6,321 | 6,317 | 6,368 | 6,360 | 6,362 | 6,357 |
| Aundh ... .... | 2,080 | 1,902 | 1,595 | 1,687 | 2,134 | 1,839 |
| Akalkot ... ... | 2,622 | 2,594 | 2,757 | 2,726 | 2,826 | 2,793 |
| Janjira ... ... | 2,164 | 2,149 | 2,028 | 2,014 | 2,284 | 2,277 |
| Southern Maratha Country States... | 21,745 | 21,637 | 22,706 | 22,593 | 21,698 | 21,610 |
| Kolhapur ... ... | 27,047 | 27,044 | 31,424 | 31,420 | 28,669 | 28,650 |
| Bansda ... ... | 1,193 | 939 | 216 | 166 | 965 | 600 |
| Total ... | 76,415 | 75,578 | 82,413 | 81,755 | 83,126 | 82,083 |

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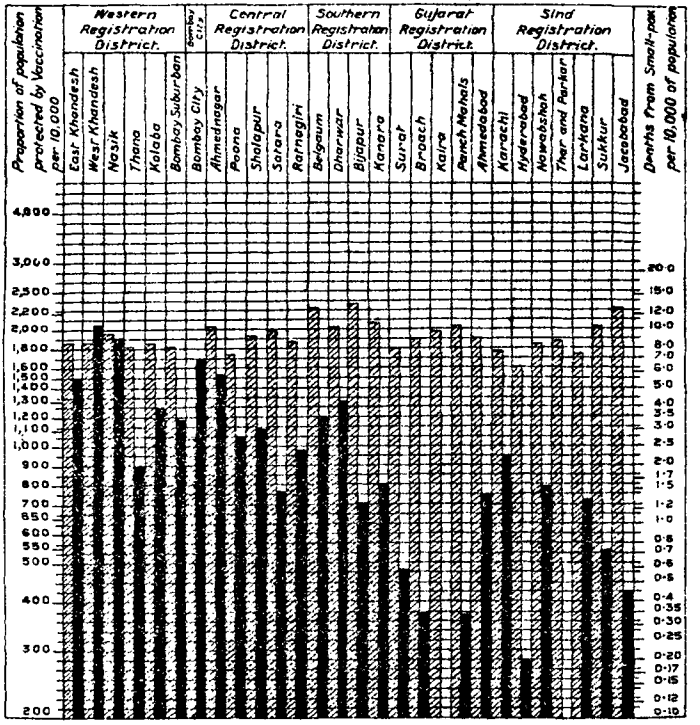
on 22 July, 2017

# APPENDIX VI

*Diagram illustrating the death rates from Small-pox during the year 1927-28 and the proportion of population protected by Vaccination during the seven year period from 1922-23 to 1928-29.*

(NOTE:- Scale figures are at Log interval.)




Proportion of population protected by Vaccination during 7 years ending 31st March 1929.

Ratio of deaths from Small-pox per 10,000 of population during the year 1928-1929.